CORPORATE RESPONSIBILITY REPORT 2017

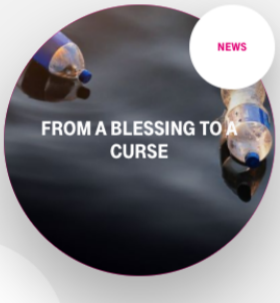
published on April 19, 2018

LIFE IS FOR SHARING.

ACT RESPONSIBLY. ENABLE SUSTAINABILITY.

What moves us

The year 2017 was full of excitement. We were awarded the German Sustainability Award in December for our comprehensive sustainability management. The World Climate Summit took place in Bonn last November - right in our neck of the woods. And the threat posed by current cyber attacks was at the top of the agenda at the Cyber Security Summit in Tel Aviv last June. These were three of many events that moved us in 2017. We focused on the sustainability goals of Agenda 2030 throughout the year – as well as on the question of how we can increase our contribution to the achievement of these goals.



PROUD AS PUNCH

"STANDING BY OUR CONVICTIONS HAS SELDOM BEEN MORE IMPORTANT THAN TODAY."

SYSTEMATICALLY FIGHTING HUNGER

REMOVE OBSTACLES - OFFER OPPORTUNITIES

What we move

Digitalization offers us the opportunity to make our life more sustainable and better. And we are taking full advantage of this opportunity with our products and services – helping conserve energy and water, protect the environment and climate and improve medical care, for example. Our networks provide the foundation for this. We operate Germany's largest fiber-optic network, at 455,000 kilometers. Our task is to ensure digital participation. Our media skills initiatives have already reached more than seven million people.

FULL THROTTLE FOR THE HIGH-SPEED INTERNET

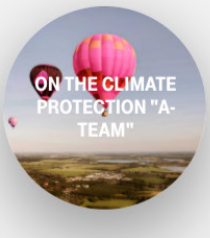
THE SUPPLIER WHISPERER

ALL'S CLEAR AT MAYA THE BEE AND FRIENDS

„ELIMINATING THE DISPOSABLE SOCIETY“

SAY GOOD-BYE TO NERVE-RACKING PARKING SPACE SEARCHES

BETTING AGAINST DEMENTIA



SECURE ON THE NET OF 1001 TRUTHS

"WE CARE" MAGAZINE: SUSTAINABILITY AS A TEAM SPORT

PROTECTION FROM AIRBORNE SPIES

HACKERS FROM AMONG OUR RANKS

CONTENTS

5 ABOUT THIS REPORT
7 AWARDS
11 INDEPENDENT ASSURANCE REPORT
13 THE GERMAN SUSTAINABILITY CODE
14 STATEMENT BY THE CHAIRMAN OF THE BOARD OF MANAGEMENT

15 CR STRATEGY
27 CR CONTROLLING AND IMPACT MEASUREMENT
30 VALUES AND GUIDING PRINCIPLES
32 SUSTAINABLE FINANCE
34 SUSTAINABLE DEVELOPMENT GOALS (SDGS)
40 ADDED VALUE AND MATERIALITY
43 STAKEHOLDER MANAGEMENT
47 COMPLIANCE
51 REPRESENTING POLITICAL INTERESTS
53 HUMAN RIGHTS
55 RISK AND OPPORTUNITY MANAGEMENT
57 DATA PRIVACY AND DATA SECURITY

59 CUSTOMERS & PRODUCTS
60 SERVICE QUALITY
63 INFRASTRUCTURE EXPANSION
67 SUSTAINABLE PRODUCTS & SERVICES
77 CONSUMER PROTECTION AND SECURITY
78 Consumer and youth protection
82 Cyber security
84 Mobile communications and health (EMF)

86 SOCIETY
87 A RELIABLE PARTNER IN THE DIGITAL WORLD
89 Raising awareness
90 Building skills
96 Encouraging implementation
98 ENGAGEMENT@TELEKOM
101 CULTURAL AND SPORTS SPONSORSHIP

104 EMPLOYEES
105 COURAGE TO TRY
106 AGILE AND FLEXIBLE: PROMOTING NEW MANNERS OF COOPERATION
111 OCCUPATIONAL HEALTH AND SAFETY
114 TRAINING AND DEVELOPMENT
121 DIVERSITY AND EQUAL OPPORTUNITIES

124 SUPPLIERS
125 SUSTAINABLE PROCUREMENT STRATEGY
127 SUPPLY CHAIN MANAGEMENT
130 2017 audit results
132 RESOURCE SCARCITY AND RAW MATERIALS SOURCING

133 CLIMATE & ENVIRONMENT
134 CLIMATE STRATEGY
136 CO_2 emissions
141 Renewable energy
143 Energy efficiency
147 Sustainable products
148 CIRCULAR ECONOMY
150 OTHER ENVIRONMENTAL TOPICS

151 **FACTS & FIGURES**
152 ECONOMIC INDICATORS
152 Socially responsible investment
154 Suppliers
157 Sustainable products
158 Network development
161 Data security and protection
162 Financial performance indicators
164 Financial personnel indicators
169 ENVIRONMENTAL INDICATORS
169 Energy
173 Renewable energy
177 CO_2 emissions
183 Enablement Factor
185 Mobility
187 Used cell-phone collection and waste volume
189 Other environmental data
191 SOCIAL INDICATORS
191 Social involvement
194 Employee satisfaction
197 Diversity
199 Compliance and human rights
200 Demography and company pension scheme
203 Training and development
206 Health and safety
208 Headcount and part-time work
211 Fluctuation and workforce management
214 Ideas management
216 Digital collaboration

217 IMPRINT
218 DISCLAIMER

ABOUT THIS REPORT

"Act responsibly. Enable sustainability." is the title of our 2017 CR Report. We chose this title to emphasize our commitment to sustainable activity along the entire value chain and to highlight the potential that our products and services hold when it comes to addressing environmental, economic and social challenges.

Deutsche Telekom has been involved in CR reporting for more than 20 years. The CR Report – in addition to the non-financial statement we published in the 2017 Annual Report – is our primary medium for informing our internal and external stakeholders about our challenges and progress as a responsible, sustainable company.

REPORTING PERIOD, SCOPE OF APPLICATION AND TARGET GROUPS

All quantitative information, indicators, and descriptions of key events and activities refer to the year 2017. Any deviations are marked accordingly. The 2017 CR Report is a Group report that includes many national companies in which Deutsche Telekom holds a majority stake. It also follows up on the 2016 CR Report.

This report is specifically addressed to Deutsche Telekom stakeholders. These include analysts and investors, CR ranking and rating agencies, non-governmental organizations, customers, employees, business partners and representatives from the fields of business, science, research, education and politics.

LOOKING BACK ON DEUTSCHE TELEKOM'S CR REPORTING

Deutsche Telekom has been reporting on its sustainability activities in various publications since 1996. From 2003 through 2006 we published a combined annual HR and Sustainability Report. An interim report issued in 2007 formed the transition to our current CR reporting. Since 2008 the Telekom Group has been publishing a comprehensive CR Report each year.

OUR ONLINE REPORT: FOCAL POINTS AND CONTEXT

We have been publishing our CR Report exclusively online since the 2010/2011 reporting year to meet the requirements and user preferences of our stakeholders. The online 2017 CR Report has been available since April 19, 2018 in German and English. Each of the five main sections begins with an introduction and an overview of relevant events and developments on that topic. The subsequent pages are structured as follows:

- Sustainability relevance: explains what makes the topic significant to sustainable development and to Deutsche Telekom's long-term business success.
- Management approach: how Deutsche Telekom approaches key sustainability topics, what its goals are and how it intends to achieve them.
- Progress during the reporting period.

The report also includes information on "CR facts" and specific information for investors and rating agencies. This is background information on a variety of topics that can be accessed directly from the text via links. Readers can also access the "CR facts" section at any time by clicking on the footer. A download area, search and dialog functions and an interactive benchmarking tool make it even easier to navigate the report. What's more, the info cart lets readers select different content and create a customized PDF file.

This year we are also publishing a CR brochure entitled "DIGITALIZATION – CREATING ENDLESS OPPORTUNITIES". DeutscheTelekom's online magazine, "We Care", also offers a range of interactive information on important social challenges.

SELECTION OF KEY TOPICS FOR THE 2017 CR REPORT

To identify the key topics for the report, we conducted a comprehensive materiality process. The process is a regular component of our annual CR reporting activities that helps us identify the topics with maximum relevance for us and our stakeholders.

STRUCTURE OF THE CURRENT ONLINE REPORT

The online 2017 CR Report has been structured as a progress report. It focuses on key developments during the reporting period, which are discussed in five central reporting sections:

- Customers and products
- Society
- Employees
- Suppliers
- Climate and environment

These are complemented by three additional sections:

- The Strategy and management section describes the management of CR processes and the Group-wide integration of Deutsche Telekom's CR strategy.
- The majority of our national companies whose CR activities are described in this report have their own profile page. The profile pages can be found under the "National companies" menu option.
- In the Indicators section, consolidated and commented indicators provide information about our progress in the past few years.

ADDITIONAL SOURCES FOR CR-RELEVANT CONTENT

In addition to this online 2017 CR Report, we also use the non-financial statement published in our Annual Report to provide information on how we assume responsibility in society. Further information about our current CR activities can be found under the "Responsibility" menu option of the Deutsche Telekom website. The national companies provide information about their CR commitment on their Internet portals and in their own publications.

IMPLEMENTATION OF HIGH INTERNATIONAL REPORTING STANDARDS

Deutsche Telekom's 2017 CR Report 2017 complies with the internationally recognized guidelines (GRI Standards) of the Global Reporting Initiative (GRI). It also serves as a Communication on Progress (CoP) from Deutsche Telekom as part of the United Nations Global Compact. You can find an overview of specific measures being used to implement the Global Compact principles here. Deutsche Telekom also issues an annual, detailed Declaration of Conformity with the German Sustainability Code.

ASSURANCE ENGAGEMENT

Selected indicators from the 2017 CR Report for Germany and our national companies Magyar Telekom (Hungary), Slovak Telekom (Slovakia), OTE and Cosmote (Greece) and T-Mobile US were audited as part of an assurance engagement by auditing firm PricewaterhouseCoopers (PwC).

In accordance with the GRIStandards, all of the indicators marked in the GRI Indexwere audited by an independent auditing firm. The independent assurance report can be found under the Assurance report menu option. All of the audited content in this report is identified with the symbol ✓ and will apply unchanged until the next CR report is published.

AWARDS

We are very pleased about being listed in renowned sustainability rankings and ratings and about the numerous awards and certifications we have received during the reporting period. Our national companies were also recognized for their CR commitment. You can find an overview of this on the profile pages of the national companies. We discuss our current position in ratings and rankings in the "Strategy and management" section.

AWARDS AND CERTIFICATES

Strategy and management

Deutsche Telekom AG
For its uniform sustainability management, Deutsche Telekom won the German Sustainability Prize in December of 2017.

Deutscher Nachhaltigkeitspreis

Deutsche Telekom AG
PHonored with the Building Public Trust Award from auditing company PriceWaterhouseCoopers (PwC) for exemplary reporting as best company in the "SDGs" (Sustainable Development Goals) category for the 2016 Annual Report

---

Deutsche Telekom AG
Named one of 2018 World's Most Ethical Companies by the Ethisphere Institute

---

Deutsche Telekom AG
Telecom industry winner in the oekom Corporate Responsibility Review 2017

oekom research

Deutsche Telekom AG
Winner in two categories at the Econ Awards 2017.

- We received the Platinum Award for the third time in a row, this time for our 2016 CR Report.
- We received the Silver for the "Standing by our convictions" CR brochure, as part of our integrated corporate communication.

Econ Award Unternehmens-kommunikation

Deutsche Telekom received the Extel award "Leading Investor Relations Team in Europe" for the fourth time in a row. Other Extel awards in 2017:

- European ranking for all industries:#1 Overall, #3 Professional, #1 CEO, #1 CFO
- German ranking for all industries:#1 Overall, #3 Professional #1 CEO, #1 CFO,
- Ranking for the telecom industry:#1 Overall, #1 Professional #1 CEO, #3 CFO

Institutional Investor: "Most Honoured company"Deutsche Telekom was selected the winner in all categories for this year's ranking by trade journal Institutional Investor in the area of All-Europe Executive Team.

Deutsche Telekom AG
German Investor Relations Prize 2016:
1st place: IR Performance (DAX30)
3rd place: IR Professionals (DAX30)

Deutsche Telekom AG
IR Magazine Award: No. 1 in the telecom industry

Inclusion in the Bloomberg Gender-Equality Index (GEI) 2018, which measures gender equality in the areas of internal company statistics, employee policy, external support and social commitment, and gender-conscious product offerings.

Customers

Deutsche Telekom AG
TÜV Rheinland: rating of "good" for Deutsche Telekom customer service

Deutsche Telekom AG
Deutschland Test 2017: Best Online Service

Deutsche Telekom AG
Deutschland Test 2017: Best Service App

Deutsche Telekom AG
Deutschland Test 2017: Service King

Network

Deutsche Telekom AG
TÜV NORD confirms that Deutsche Telekom offers the best mobile communications quality in the categories Call Connection, Call Stability and Call Quality.

Deutsche Telekom AG
Deutsche Telekom receives multiple awards as best mobile communications operator with an overall grade of 1.9 (good).

Deutsche Telekom AG
Several first places in the 2017 Connect reader survey (edition: 7/2017)

Deutsche Telekom AG
First place in the "Mobile Communications Networks" category of the Car Connectivity Award.

Deutsche Telekom AG
CHIP (edition 1/2018): Winner in the "Mobile Internet", "Telephony" and "Availability" categories and overall winner with a grade of 1.4.

Deutsche Telekom AG
A rating of "very good" in the Connect mobile communications test 2018

Society

Teachtoday
Three Comenius EduMedia Seals presented by the scientific association Gesellschaft für Pädagogik und Information (GPI) (Society for Education and Information) for Teachtoday: The entire initiative was recognized in the "Didactic Multimedia Products" category, the obstacle course in the "Computer Games That Encourage Competence" category and Scroller magazine in the "General Multimedia Products" category.

Media magazine “Scroller”
Our media magazine “Scroller” was also recommended by Stiftung Lesen, the German Reading Foundation, to promote safe, competent media use.

Handbook GermanyHandbook Germany was recognized at the Film Festival Cologne by the MEDIA & MIGRATION NRW 2017 project in the "Best Commitment by an Initiative/Institution" category.

Deutsche Telekom AG
For its commitment to supporting millions of Syrian refugees, the GSM Association recognized Deutsche Telekom with the GLOMO Award2017in the "Outstanding Contribution to the Mobile Industry" category.

Employees

Deutsche Telekom AG
Named Best Training Provider in Germany 2017 by "Capital" magazine. Deutsche Telekom received the highest marks for both its vocational training and its cooperative study program.

Deutsche Telekom Services GmbH
Deutsche Telekom Services GmbH received Gold at the Pillar World Awards 2017 for the "Time-to-Change" project in the "Employer of the Year" category and silver in the "Best Products & Services of the Year" category.

Deutsche Telekom Services GmbH
Gold for the “Time-to-Change" project in the "Human Resources Achievement of the Year" category and Silver for "IT-based solution self-service for job references” in the "New Products and Services from All Over the World" category by the Golden Bridge Awards 2017:

Deutsche Telekom AG
Ideas Management Award 2017 bestowed by the German Institute for Ideas and Innovation Management: Second place in the "Best Idea 2017 from Production and Technology" category and third place in the "Best Idea 2017 from Management and Administration" category (one employee idea for each category).

Deutsche Telekom AG
First place Female Recruiting Award 2017

Deutsche Telekom AG
Online Talent Communication Study 2017: second place for the four examined online channels of Career Website, Online Job Solicitation, Social Media Appearances and Mobile Career Website.

Deutsche Telekom AG
Deutsche Telekom is awarded first place for the Telekom Team Recruiting Website in the Career Website category by HR Excellence Award 2017.Deutsche Telekom Services Europe is awarded third place for "FEA Robot on Track for Digitalization" in the "Work 4.0" category.

Deutsche Telekom AG
German Business Award in Health: Receipt of the Excellence Seal for Deutsche Telekom's integrated company health management and recognition of the "Active Workplace" project with the "Innovative Company Health Promotion Activities" special prize.

Deutsche Telekom AG
First place: Corporate Health Award 2017 in the "Service Provision, IT and Communication" category for the fourth time.

Makedonski Telekom
Gold Award for outstanding performance in company health management by the Macedonian National Society for Work Safety.

T-Systems Singapore
T-Systems Singapore was honored in the "Managing Health at Work" category at the Asia Best Employer Award 2017.

T-Systems Singapore
Singapore Health Award 2017: T-Systems Singapore won the Corporate Merit Award

Singapore HEALTH Award

Deutsche Telekom 2017
In the year 2017, Deutsche Telekom made it into the final round in the CO_2 Avoidance as a Contribution to Climate Protection category.

Suppliers

Deutsche Telekom AG
CDP A list in Supplier Program category

CDP
DRIVING SUSTAINABLE ECONOMIES

Climate and environment

Deutsche Telekom AG
CDP A list (climate protection ranking)

CDP A LIST 2017 CLIMATE

INDEPENDENT ASSURANCE REPORT

Independent Practitioner's Report on a Limited Assurance Engagement on Sustainability Information*

To Deutsche Telekom AG, Bonn

We have performed a limited assurance engagement on the disclosures denoted with in the Corporate Responsibility Report of Deutsche Telekom AG, Bonn (hereinafter: "the Company"), for the period from1 January 2017 to31 December 2017 (hereinafter: "Report"). Our engagement in this context relates solely to the disclosures denoted with the symbol .

Responsibilities of the Executive Directors
The executive directors of the Company are responsible for the preparation of the Report in accordance with the principles stated in the Sustainability Reporting Standards of the Global Reporting Initiative (hereinafter: "GRI-Criteria") and for the selection of the disclosures to be evaluated.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of sustainability reporting as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Report that is free from material misstatement whether due to fraud or error.

Independence and Quality Control of the Audit img Firm
We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis - IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner´s Responsibility
Our responsibility is to express a limited assurance conclusion on the disclosures denoted with in the Report based on the assurance engagement we have performed.

Within the scope of our engagement we did not perform an audit on external sources of information or expert opinions, referred to in the Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits img or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the disclosures denoted with in the Company's Report for the period from1 January 2017 to31 December 2017 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria. This does not mean that a separate conclusion is expressed on each disclosure so denoted.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of personnel involved in the preparation of the Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Report
- Identification of the likely risks of material misstatement of the Report under consideration of the GRI-Criteria
- Analytical evaluation of selected disclosures in the Report
- Performance of web conferences and telephone interviews as part of the inspection of processes and guidelines for data collection at the following locations:
  - Deutsche Telekom AG
  - PASM img GmbH
  - Strabag SE
  - T-Mobile US Inc.
- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report

- Evaluation of the presentation of the selected disclosures regarding sustainability performance

Assurance Conclusion
Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures denoted with in the Company's Report for the period from1 January 2017 to31 December 2017 have not been prepared, in all material aspects, in accordance with the relevant GRI-Criteria.

Intended Use of the Assurance Report
We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement. The report is not intended to provide third parties with support in making (financial) decisions. Our responsibility lies solely toward the Company. We do not assume any responsibility towards third parties.

Düsseldorf, 19 April 2018

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Hendrik Fink
Wirtschaftsprüfer

ppa. Pia Schnück

(German Public Auditor)

***PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the Corporate Responsibility Report and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.**

THE GERMAN SUSTAINABILITY CODE

Each year, as part of its Corporate Responsibility report, Deutsche Telekom publishes a comprehensive declaration of conformity with the German Sustainability Code. The German Sustainability Code aims to make companies' sustainability performance transparent and comparable under a binding framework.

Deutsche Telekom's declarations of conformity can be viewed here.

The German Sustainability Code was approved by the federal government's Council for Sustainable Development. Deutsche Telekom was one of the first companies to accede to the Sustainability Code.

STATEMENT BY THE CHAIRMAN OF THE BOARD OF MANAGEMENT

Dear Readers,

The year 2017 ended with a real highlight for Deutsche Telekom: In December, we received the German Sustainability Award for our holistic sustainability management. I am pleased that this award recognizes not only our many years of work, but also how we are using the opportunities offered by digitalization for a better future.

This positive conclusion to the year was important for me. For looking back at the year, there was again great cause for concern in 2017: persistent armed conflicts forcing people to flee their homeland. Political rhetoric exacerbating conflicts rather than defusing them. Burgeoning nationalism focusing on division and not on cooperation. And fatal ignorance as regards the consequences of climate change, threatening to undo the hard-won progress of recent years.

But anyone who just decides to sit back and do nothing is drawing the wrong conclusions. I feel very strongly that standing by our convictions has seldom been more important than today. This applies not only to us as individuals; it is particularly relevant to Deutsche Telekom as a company. The values for which Deutsche Telekom stands must be defended. We are a European undertaking, and believe in the European vision of shared prosperity and social security. It is not for nothing that our brand motto is Life is for sharing. We want to enable sharing through digitalization in Europe and beyond. We stand for optimism as well, for in order to leave a world worth living for the next generation, we must stride into the future with courage and curiosity.

The biggest driver for this is digitalization. It will enable progress in the fight against climate change, in medicine and education, creating more livable cities and inventing new products for a more sustainable everyday life. So what is our role as Deutsche Telekom? We are "enablers": In this way, we want to make our contribution so that digitalization can unleash its full potential for more sustainable development.

We are laying the foundation for this with our investments: Each year, we invest more than five billion euros in Germany alone, especially in expanding our networks. At 455,000 kilometers, we already operate Germany's largest fiber-optic network. But our responsibility does not end with providing technical access alone. The key to equal participation of all in the knowledge and information society is media literacy – especially today, in times of fake news, filter bubbles, cyberbullying and hate comments. Hence, this is one of the focal points of our social commitment.

Timotheus Höttges, Chairman of the Board of Management, Bonn, Deutschland

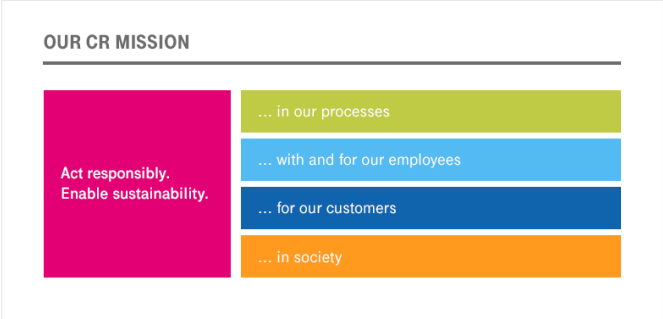
As optimistic as we are, we cannot ignore the fact that some people fear negative consequences of digitalization. For this reason, we're exploring Within our Group, this means above all strengthening our employees to handle change, realigning our skills and promoting lifelong learning. Moreover, we want to encourage social debate: via our Group's "Digital Responsibility" portal and together with partners in the "Charter of Digital Networking " initiative. Last but not least, it is important to strengthen users' trust through consistent commitment to data security and data privacy.

Building bridges for a sustainable future is a matter of principle for me. With this in mind, I would like to reaffirm our commitment to the principles of the United Nations Global Compact and the German Sustainability Code.

Tim Höttges

CR STRATEGY

Deutsche Telekom aims to be the leading telecommunications provider in Europe. This corporate vision is the basis for our approach as a responsible company (CR approach) and our CR mission.



Our Group CR strategy also provides our national companies with a framework for their sustainability measures. The central components are our three CR action areas. They provide a framework for the focal topics of our sustainability management activities.

Our CR program states which specific goals we wish to achieve with which measures. We monitor our progress using key performance indicators (KPIs).

An integrated governance structure helps us to closely interlink strategic management and operational implementation of our CR strategy throughout the Group. Overall responsibility for sustainability lies with the Deutsche Telekom Board of Management.

CURRENT ORGANIZATIONAL STRUCTURE

Our Group Corporate Responsibility (GCR) unit is a key driver for change within our company. Within the organization, it reports to the Chief Human Resources Officer. The duty of the GCR is to further develop our corporate culture with a focus on sustainable innovation and social responsibility.

Another pillar of our CR governance structure is the HR Leadership Team (HR LT). The team is an advisory and decision-making body for the Human Resources (HR) Board department. It makes decisions on Group-wide policies and guidelines, CR positioning, and the strategic focus of the CR department. Members of the HR LT are managers at the level below the Chief Human Resources Officer.

In addition, the CR Board, composed of the heads of key Group units, supports the CR department when it comes to CR management and strategy enhancement.

The CR managers from the different business units and national companies are responsible for implementing our CR strategy. They collaborate intensively within the international CR Manager Network, where they coordinate their activities and share best practices.

CR GUIDELINE INTRODUCED AT EUROPEAN NATIONAL COMPANIES

Our CR Policy provides the formal, mandatory framework for the sustainability management activities at all Group units. We introduced the policy at Group Headquarters, Telekom Deutschland and T-Systems back in 2014 and at the majority of the European national companies (in the fixed-line and mobile communications area) at the end of 2017. The USA plans to adopt a CR Policy in 2018.

BE SMARTER! - NEW SUSTAINABILITY STRATEGY 2016 - 2020 AT MAGYAR TELEKOM

Magyar Telekom aims to make sustainability an integral part of our business. We therefore developed a new sustainability strategy for the period from 2016 to 2020 that was influenced by the expectations of responsible investors, EU directives, industrial and corporate trends, local conditions, and consumption patterns. Climate protection, education, and digitally enabled sustainability will be the major focus of the strategy until 2020. Our strategy continues to remain valid and no major update was therefore needed.

Climate Protection – Our goal is to help our customers become climate conscious. Our ambitious objective is to generate revenue from our climate protection activities while at the same time reducing our actual CO_2 emissions below 100,000 metric tons. This enables us to enhance our activities directed toward decreasing emissions and specifically build on our “green” services.

Education – Our goal is to directly or indirectly reach 100,000 people in Hungary through our training program by 2020 with the objective of educating the public and our customers. We are focusing primarily on programs aimed at eliminating the digital gap and expanding the succession pool in industry.

Digitally enabled Sustainability – As a sustainable digital company, Magyar Telekom enables its customers to use sustainable digital services. We strive to pursue responsible marketing and activities that enable and inspire others. Awareness in the public domain of Magyar Telekom as a sustainable company is projected to reach 50 percent.

CERTIFIED HEALTH, SAFETY AND ENVIRONMENTAL MANAGEMENT SYSTEM: ALMOST ALL WORKPLACES COVERED

We want to make sustainability a component of all our business processes and of our employees' everyday lives. Our integrated health, safety and environmental (HSE) management system assists with this at the Group level. The management system helps us systematically to plan, implement and improve our HSE processes. This promotes the health of our employees and has a positive effect on their performance. It is also beneficial when it comes to bidding on new projects, since an increasing number of potential customers now require their suppliers to provide HSE certificates.

Our Group-level HSE management system is covered by an umbrella certificate based on the international standards OHSAS 18001 for occupational health and safety and ISO 14001 for environmental management. For some units, it also covers international standard ISO 90001 for quality management. Some of the national companies are not covered by an umbrella certificate because they have their own certifications which are, in part, even more comprehensive. This is the case in Greece, for example. This national company has an integrated management system, which in addition to the above-mentioned standards, also covers the international standards ISO 50001 for energy management and ISO 27001 for data security. Telekom Deutschland also has an environmental certification.

Through our compliance with legal regulations, we already meet the essential requirements for OHSAS 18001 certification in Germany. All employees in Germany and 99 percent of employees outside of Germany are employed at an OHSAS 18001-certified workplace. Some 93 percent of employees in Germany are employed at an ISO 14001-certified workplace. Internationally, we are at 83 percent coverage. Our goal is to cover all companies that have more than 50 employees by the end of 2018. Furthermore, we have additional certificates outside of Germany for our health, safety and environmental management systems, with which we cover 99 percent of our international employees.

ACHIEVING MORE TOGETHER: INTERNATIONAL COLLABORATION

How can international corporations put sustainability strategies into practice across borders? Deutsche Telekom employs CR managers for the relevant business segments and national companies to reach this goal. Through the CR Manager Network, CR managers attend regular face-to-face and online meetings to share best practices and discuss new challenges, thereby jointly promoting essential CR issues. The central Group Corporate Responsibility (GCR) department is responsible for managing the network.

Since the 17th CR manager meeting in May 2017 in Bucharest, topics have been increasingly discussed in workshops, which our international colleagues help shape. The workshops lead to working groups and regular online meetings in order to jointly promote key topics.

The 18th CR manager meeting took place on November 15 in Bonn within the framework of the UN Climate Conference. It was connected to the event "The Impact of ICT on climate change – curse or blessing", which was hosted by GCR.

GERMANY'S MOST SUSTAINABLE LARGE COMPANY 2017

For its uniform sustainability management, Deutsche Telekom won the German Sustainability Award in December of 2017.

The jury commended Deutsche Telekom's pioneering role, stating: Deutsche Telekom AG is setting the bar with its sustainable supplier management, enabling massive energy savings for its customers with its core operations and itself contributing to more energy efficient data transmission with various measures.

2017 CR PROGRAM

As part of its CR program, Deutsche Telekom specifies targets to be implemented throughout the Group in the relevant processes of its core business.

The CR program defines specific measures and a timeline for implementation. We also provide information on the implementation status of various goals in the CR program. Detailed information on the ESG KPIs, which we use to quantify our performance in each area, is provided in the CR Report.

CR PROGRAM 2017

STRATEGY AND MANAGEMENT

Goals	Scheduled completion date	Measures	Status
Advance CR governance	Ongoing	▪ Gradually implement the Group Corporate Responsibility Policy at the national companies ▪ Drive the integration of CR into the Group's central business processes ▪ Integrate CR into the Group strategy	▪ Group Corporate Responsibility Policy introduced at the majority of European national subsidiaries. Implementation of the CR Policy in the USA is slated for 2018. ▪ Ten key ESG KPIs reported in the non-financial statement ▪ Four new ESG KPIs established: ▪ CR-Qualified Top 200 Suppliers ESG KPI ▪ CDP Supply Chain Coverage ESG KPI ▪ Social Innovation ESG KPI ▪ PUE value also shown as KPI for the first time and complemented by a target value ▪ Awarded the German Sustainability Award 2017
Embrace corporate values, accompany the transformation process	Ongoing	▪ Promote new forms of collaboration at the Group ▪ Participate in dialog on topics relevant to society ▪ Regularly review all KPIs for the benefits they provide, make them mandatory throughout the Group with target values	▪ Group-wide implementation of programs and formats - virtually or as face-to-face events, including the annual "Guiding Principles Day" ▪ 18 CR manager meeting held in Bonn as part of the UN Climate Conference. ▪ Dialog on digital responsibility with experts from business, science, politics and society expanded via telekom.com and social media
Promote the Sustainable Development Goals (SDGs)	Ongoing	▪ Expand measures for SDG target achievement ▪ Integrate key SDGs into CR processes and reporting ▪ Use of SDGs for dialog with customers and employees intensified, also in terms of product assignment ▪ Set up impact measurement	▪ In-depth reporting of our potential for contribution to the 17 UN goals (SDGs) in the annual report and the CR Report. Shown as a separate section of the CR report for the first time ▪ Pilot project started to measure the impact of our contributions to the SDGs ▪ ESG KPI and other indicators allocated to the Sustainable Development Goals. Findings: Prioritized SDGs effectively covered by ESG KPIs or supplementary indicators. ▪ Employees made aware of the SDGs ▪ Engagement in cross-industry initiatives such as UN Global Compact, GSMA, and Econsense (SDG 17) ▪ The 2015 Annual Report received the "Building Public Trust Award" as the best company in the SDG category

CR PROGRAM 2017

STAKEHOLDER INVOLVEMENT

Goals	Scheduled completion date	Measures	Status
Ensure systematic stakeholder engagement	Ongoing	▪ Stakeholder engagement strategy based on the principles of the Global Reporting Initiative (GRI G4).	▪ Stakeholders involved through different formats, including dialog with experts from business, science, politics and society on digital responsibility via Deutsche Telekom's YAM platform; international sustainability dialog held by the Joint Audit Corporation (JAC); the supplier development program; the "We Care" magazine; the Magenta Security Congress; the Cyber Security Summit; the "1001 truths - trust and opinion-forming online" activity day; revision of the "Fakten zu Mobilfunk und Gesundheit" (Facts about Mobile Communications and Health") brochure; SRI roadshows and the in-house climate conference as part of COP23 at our Service Headquarters in Bonn
Establish a materiality process	Ongoing	▪ Conduct annual materiality analysis (materiality processes)	▪ Materiality analysis conducted for 2017 ▪ Materiality process further developed pursuant to the Global e-Sustainability Initiative (GeSI) methodology.

CR PROGRAM 2017

CLIMATE PROTECTION

Goals	Scheduled completion date	Measures	Status
Reduce CO_2 emissions throughout the Group by 20 percent compared to 2008 (absolute figures)	2020	▪ Roll out climate protection activities internationally ▪ Introduce Group-wide monitoring ▪ New CO_2 target for newly acquired cars (average of 95g CO_2/km for newly acquired vehicles by 2020) ▪ Migrate network infrastructure to energy-efficient IP technology ▪ Consolidate data centers	▪ Group-wide climate protection target approved by Group Board of Management in 2013 ▪ Annual status report to Board of Management implemented ▪ Emissions from networks in Germany are higher than projected; we will analyze the effects and other measures to meet our target; already on track: an expansion of our commitment to renewable energy ▪ Change of method to calculate the climate target based on a market-based approach, in order to take renewables into account ▪ Around twelve million lines switched over to IP in Germany. ▪ The PUE value in T-Systems Deutschland data centers is 1.54.
Develop an integrated climate protection strategy and adapt it to climate change developments	2020	▪ Reduction of CO_2emissions ▪ Increased share of renewable energy ▪ Increase energy efficiency and introduce two new KPIs to show the ratio between our energy consumption and carbon footprint to transported data volume ▪ Identify and use business potential from climate-friendly services ("enabling") as well as opportunities in terms of product development and offers (establish sustainable product portfolio)	▪ In 2017 we showed the PUE value as a KPI for the first time and complemented it with a target value. ▪ 2017 saw Greece (OTE), Hungary, Albania, Austria and the Netherlands use 100 percent electricity from renewable energy sources ▪ The share of electricity from renewable energy sources came to an average of 10 percent above the relevant country mix throughout the Group in 2017. ▪ Enablement factor: In Germany we enabled our customers to generate around 70 percent less CO_2 than the amount generated by our company (factor: 1.7:1). In Europe (including Germany), our customers' potential savings in 2017 were significantly higher than in the previous year (factor 1.2, 2016: 0.95). ▪ According to an analysis conducted in 2017, we generated 40 percent of our total revenue in 2016 with sustainable products (39 percent in 2015)
Record Scope 3 emissions throughout the Group	2016	▪ Develop methods to measure company and product-related CO_2 emissions and integrate these into the reporting process	▪ Scope 3 emissions fully recorded and reported for business in Germany and almost all national companies (since 2015); in 2017 also reported for T-Systems

CR PROGRAM 2017

MANAGEMENT SYSTEMS

Goals	Scheduled completion date	Measures	Status
Implement an occupational health, safety and environmental management system in compliance with ISO 14001 and OHSAS 18001 at all national companies with more than 50 employees.	Ongoing	▪ Implement an integrated management system based on both standards and harmonize the different management process levels at the national companies	▪ 100 percent of employees in Germany and 99 percent of employees outside Germany work in a workplace that is OHSAS 18001 certified. Some 93 percent of employees in Germany are employed at an ISO 14001-certified workplace. Internationally, we are at 83 percent coverage. Furthermore, we have additional certificates outside of Germany for our health, safety and environmental management systems, with which we cover 99 percent of our international employees.

SUSTAINABLE CONSUMPTION AND LIFESTYLE

Goals	Scheduled completion date	Measures	Status
Evaluate products and solutions regarding their contribution to sustainability	Ongoing	▪ Implement the criteria and indicators developed in collaboration with external and internal stakeholders in company processes ▪ Integrate product-based sustainability controlling in business processes and ensure Group-wide harmonization ▪ Integrate the topic of sustainable products into corporate processes and develop a comprehensive strategy ▪ Analyze products in terms of how they contribute to sustainability and what this can do for our business; include results in customer communication ▪ Participated in industry-wide solutions to evaluate products and solutions in terms of sustainability	▪ Overall, we have carried out in-depth analyses for 17 product groups with regard to their sustainability benefits and the corresponding business potential (as at end of 2017). ▪ According to an analysis conducted in 2017, we generated 40 percent of our total revenue in 2016 with sustainable products (39 percent in 2015);
Ensure stakeholder engagement and customer information	2020	▪ Conduct regular stakeholder dialog on specific topics ▪ Develop sustainability-related customer orientation policies ▪ Drive international standardization, e.g., via seals of quality or certification in the ICT sector ▪ Get more products certified with the Blue Angel and TÜV Green Certified Product environmental labels	▪ Regular stakeholder dialog on specific topics conducted ▪ All DECT phones from our Sinus series as well as all phones from the Speedphone series bear the Blue Angel environmental label. ▪ The Media Receiver Entry and Media Receiver 201 received the Blue Angel. ▪ Sustainability award for our commitment and role as pioneer and multiplier for climate protection
Integrate life cycle assessment and usage behavior (sustainable consumption)	2020	▪ Tap efficiency potential in the product life cycle and enhance products and solutions to include sustainability criteria ▪ Blacklist on environmentally harmful materials (not prohibited by law) contained in our products	▪ Successful advancement of lease model for devices (e.g., Media Receiver) to increase recycling share and length of use ▪ Workshops conducted with suppliers on the voluntary materials blacklist, which was developed in cooperation with the Fraunhofer Institute for Reliability and Microintegration (Fraunhofer IZM)

CR PROGRAM 2017

SUSTAINABLE INNOVATION AND ENTREPRENEURSHIP

Goals	Scheduled completion date	Measures	Status
Develop innovative, sustainable business models	2020	▪ Establish general requirements to promote innovation in the sustainability field and identify and evaluate young companies and start-ups (partnering) ▪ Promote innovative business ideas through hub:raum program	▪ In 2017 hub:raum invested up to 300,000 euros in six start-ups (seed funding). Prototype program launched by hub:raum to promote the development of innovative 5G use cases in Europe. ▪ Promotion of innovations through our internal innovation program „UQBATE“

SOCIALLY RESPONSIBLE INVESTMENT

Goals	Scheduled completion date	Measures	Status
Increase share of socially responsible investors in freely tradable stock	Ongoing	▪ Further enhance rating results ▪ Direct dialog with investors at SRI roadshows and in SRI calls ▪ Improve communication with investors regarding our sustainability efforts	▪ Again included in RobecoSAM World and Europe Index ▪ Two "Socially Responsible Investment (SRI)" roadshows held in France and the US ▪ At the end of 2017 around 18 percent of T-Shares were owned by investorswho consider SRI criteria in their investment decisions at least to some extent. Three percent of T-Shares were held by investors who give priority to SRI aspects when managing their funds. ▪ Interested investors were informed through dedicated conference calls and participation in SRI conferences; numerous direct queries from rating agencies, analysts and investors were answered

CR PROGRAM 2017

SUSTAINABLE SUPPLY CHAIN

Goals	Scheduled completion date	Measures	Status
Increase the share of suppliers that will be audited for sustainability	Ongoing	▪ Weighting sustainability aspects at 10 percent for bids ▪ Supplier Code of Conduct (SCoC) ▪ Supplier risk analysis ▪ Supplier surveys and self-assessments ▪ Supplier evaluation and development ▪ Escalation process for violations	▪ Target of increasing the share of suppliers audited for sustainability to 80 percent by 2020 was already achieved in 2016 ▪ Share of suppliers audited for sustainability in 2017: 81 percent ▪ 109 suppliers participated in the CDP Supply Chain program (this covers 66.4 percent of our procurement volume) ▪ CR-Qualified TOP 200 Suppliers ESG KPI and CDP Supply Chain Coverage ESG KPI further developed ▪ Supplier Code of Conduct revised, widening its scope by coordinating with and using Orange S.A. above and beyond our procurement joint venture "Buyln"
Increase the share of CR-classified suppliers among our TOP 200 suppliers	Ongoing	▪ Use self-assessments, audits, sustainability workshops for suppliers, and supplier development programs	▪ CR-Qualified TOP 200 Suppliers ESG KPI developed as a management tool
Implement a sustainable procurement strategy	Ongoing	▪ Develop our Social Charter into the Code of Human Rights & Social Principles ▪ Incorporate sustainability principles into the Group's Global Procurement Policy ▪ Stakeholder engagement ▪ Established escalation procedure for serious cases ▪ Group-wide implementation by the Sustainable Procurement Working Group (SPWG) ▪ Employee training courses	▪ E-learning tool "Sustainability in procurement" revised and updated; used in the procurement joint venture "Buyln" ▪ Participation in a dialog event on sustainability in supply chains held by the Joint Audit Cooperation ▪ Share of suppliers audited for sustainability in 2017: 81 percent
Improve sustainability in our supply chain	Ongoing	▪ Introduce the Supplier Code of Conduct (also applicable for the "Buyln" joint venture) ▪ Continue the supplier development program ▪ Anti-corruption training for suppliers in Germany	▪ Supplier development program expanded from 11 to 14 companies

CR PROGRAM 2017

SOCIAL COMMITMENT

Goals	Scheduled completion date	Measures	Status
Integrate people into the knowledge and information society	Ongoing	▪ Expand efforts to promote media literacy and the responsible use of media	▪ Teachtoday flagship project continued. Results: ▪ Relaunch of the medienabersicher.de website, showing all of the initiatives to improve media literacy ▪ Teachtoday media obstacle course on tour again in Germany. ▪ "Media, sure! But secure." competition on the theme of "Do the media influence opinion?" ▪ Teachtoday activities day run on "Safer Internet Day", teaching 60 schoolchildren about security, data protection, duration of cell phone use and cyberbullying ▪ Training for media scouts run by Teachtoday at the "Media 2017" German Youth Conference in Rostock ▪ Further internationalization of the Teachtoday online platform. The platform is currently available in the following languages: German, English, Romanian, Polish and Croatian. Two issues of new "Scroller" magazine for children published in German and English; first interactive issue published in German and Arabic.
		▪ Continue to expand "Yes, I can!" initiative as a flagship project	▪ In 2017, 82 open youth work projects fostering digital skills were funded through the initiative. Total funding in 2017: around 600,000 euros. ▪ "Yes, I can!" initiative: more than 1,200 projects funded since 2009 with a volume of more than 6 million euros. ▪ The initiative was taken on by the Deutsche Telekom Stiftung foundation in January 2017
		▪ Offer work integration programs for refugees	▪ Involvement in refugee aid refocused toward integration on the job market: ▪ Deutsche Telekom offered up to 100 training positions, and places on entry-level training schemes and cooperative Bachelor's and Master's programs. ▪ Six applicant days held for future interns ▪ Through recruiting measures, collaboration with the Federal Employment Agency, communication via social media, volunteer workers and refugees who already work for the company, we have increased the ratio of applicants to job offers from roughly 2:1 to 5:1. ▪ "Internship PLUS direct entry" initiative continued: 38 places offered. Four of the new employees on this program are supporting customer service with their Arabic language skills as part of the "Telekom hilft!" (Telekom helps!) team or by answering questions through the Arabic Twitter hotline that was established in this context. ▪ "Welcome" scholarship program run by Deutsche Universitätsstiftung supported to help students seeking refuge in Germany.

CR PROGRAM 2017

SOCIAL COMMITMENT

Goals	Scheduled completion date	Measures	Status
			▪ Ongoing provision of free WiFi to refugee reception centers. ▪ Ongoing provision of buildings as refugee accommodation and to as offices for the German Federal Office for Migration and Refugees. ▪ More than 500 civil servants working for the Group temporarily supported the German Federal Office for Migration and Refugees (BAMF). ▪ DTAG employees involved in volunteer refugee work, e.g. the eStart program of cooperation partner Volunteer Vision, received support. As of December 2017: 63 Deutsche Telekom employees supported one refugee each as language tutors.
		▪ Ongoing evaluation of engagement@telekom activities	▪ 379 volunteering projects completed, involving 28,477 employees and 58,660 hours volunteered
		▪ Continue to improve transparency regarding the effectiveness of our social commitment by conducting ongoing effectiveness measurements	▪ Effectiveness of social commitment measured through the Social Commitment ESG KPI, Community Investment ESG KPI, Beneficiaries ESG KPI and Media Literacy ESG KPI

CR PROGRAM 2017

NETWORKS

Goals	Scheduled completion date	Measures	Status
Provide broadband to around 80 percent of the German population.	2018/19 (target adjusted)	▪ Expand fiber optics infrastructure and equip/upgrade street cabinets with vectoring technology	▪ Expansion of vectoring structure continued ▪ October 2017: The first two of 7,600 nearshore areas in Germany were converted to fast vectoring technology (Moitin near Rostock and Bad Grund in the Harz region).
Provide LTE coverage to 95 percent of the population in Germany	2018	▪ Set up additional base stations ▪ Continue LTE 1800 and LTE 800 network build-out	▪ LTE coverage Provided for 94 percent of the population in Germany (by the end of 2017) ▪ Network coverage provided for around 93 percent of the population (by the end of 2017) ▪ Around 75 percent of European transmitter masts equipped with LTE Two or more frequency bands are active in almost every fourth LTE location (ensuring more extensive reach and higher speeds).
Ensure that migration to IP in Germany is largely completed by the end of 2018	2018	▪ VDSL vectoring build-out ▪ Migration to IP technology	▪ Around 70,000 lines weekly migrated to IP. ▪ The IP rate for business customer lines was significantly more than 50 percent by the end of 2017. ▪ Thanks to the use of IP-based vectoring technology, 3.5 million households in almost 50 cities could enjoy speeds of up to 100 MBit/s by the end of 2017. ▪ Around 16.5 million households in Germany (69 percent) had switched to IP technology by the end of 2017 ▪ As well as Croatia, Montenegro, FYRO Macedonia and Slovakia, 100 percent migration to IP has now also been completed in Hungary.

CR PROGRAM 2017

EMPLOYEES

Goals	Scheduled completion date	Measures	Status
Establish human resources policies adjusted to different life phases	Ongoing	▪ Continue to improve work-life balance offer ▪ Promote part-time study programs (Bologna@Telekom)	▪ Enhanced support for employees caring for family members through new advisory services and arrangement of assistance; ▪ 20 parent-and-child offices installed at a total of 15 locations ▪ Flexible working hours models expanded; lifetime work account offer expanded to all employees. 9,000 lifetime work accounts set up by the end of 2017.
Be the first DAX-30 company to achieve a quota of 30 percent for women in middle and upper management	2020	▪ Ensure equal opportunity, freedom from discrimination and competitiveness ▪ Introduce target quotas along the entire talent pipeline ▪ Design and implement Managing Diversity module for manager training ▪ Improve work-life balance	▪ Percentage of women in managerial positions throughout the Group increased from 19 percent (February 2010) to 25.4 percent (December 2017) ▪ Quota development monitored, measures aligned, evaluated and redesigned where necessary ▪ Mentoring program to prepare employees for positions on the supervisory boards of German and international affiliated companies continued. Ten out of a total of 64 participants were appointed to supervisory board positions; ▪ Mentoring program for experts and managers during parental leave: successful start of third round with a total of 31 experts and managers (by the end of 2017)
Provide room for development and advancement	Ongoing	▪ Introduce new forms of internal and external collaboration, agile work and improved service orientation and encourage entrepreneurial thinking and action ▪ Participate in the discourse on relevant topics within society in a structured way	▪ Group-wide Future Work program to establish a pioneering concept for a communicative work environment that promotes innovative strength and agility further advanced ▪ Digital learning formats expanded, e.g. MagentaEINS; 37 percent of all training hours were completed online; ▪ Continuation of communities of practice as a form of collaboration that spans across functions and hierarchies; 30 communities established at T-Systems to date ▪ Advanced training to become a Cyber Security Professional: altogether, eleven graduates successfully completed this training in the first year. The fourth round started at the end of September 2017 with twelve participants.

CR CONTROLLING AND IMPACT MEASUREMENT

Deutsche Telekom's CR Controlling department plays a key role in controlling our CR activities. Controlling has been supported by an IT-based data collection system for the past eight years. The system makes sure that ESG (environmental, social and governance) data and KPIs are promptly and transparently recorded and reported. It supports standardized, mandatory processes at the Group and national level and enables Group-wide benchmarks. This IT support lets us focus on content analysis of ESG data and helps us measure early on in the process to what extent we have reached our CR targets and if we need to make changes.

We especially use ESG data to calculate our ESGKPIs, with which we measure and control our CR performance throughout the Group. CR Controlling is also responsible for recording other performance indicators with sustainability relevance. These are published in the performance indicator section as well as in the CR report's interactive benchmarking tool.

We further defined the focus of the CR Controlling department in 2017 by refining the KPI system for controlling based on internal and external requirements:

- We incorporated two new ESG KPIs in 2017 for measuring our progress in creating a more sustainable supply chain: the CR-Qualified Top 200 Suppliers ESG KPI and the CDP Supply Chain Coverage ESG KPI.

- Suppliers who fulfill our strict sustainability criteriaare included in our CR-Qualified TOP 200 Suppliers list. This list contains 200 suppliers who were qualified based on our criteria. They receive preferential treatment when we award projects. The new CR-Qualified Top 200 Suppliers ESG KPI shows how many of these suppliers underwent a risk assessment in the past year.

- The CDP Supply Chain Coverage ESG KPI measured the percentage of procurement volume from emission-intensive suppliers who took part in the CDP Supply Chain Program in 2017. The number was 66 percent. Our goal is to cover 70 percent of our procurement volume with suppliers who take part in the CDP Supply Chain Program.

- The ESG KPI Energy Consumption and the ESG KPI CO_2 Emissions have no longer been reported since 2017. After a transition phase in 2016, these were entirely replaced by the Energy Intensity ESG KPI and the Carbon Intensity ESG KPI.

- We also adopted the Social Innovation ESG KPI in 2017. We use this KPI to record the number of downloads of our mobile app "Sea Hero Quest", which was developed to fight dementia. We now thus have another indicator for measuring ICT's contribution to solving social challenges, in addition to the Enablement Factor ESG KPI.

- We use the PUE value, among other things, to ascertain the energy efficiency of our network infrastructure. Due to its high relevance, the PUE value is for the first time also mentioned in the Indicators section of this CR report as a KPI with a target value.

Impact measurement is another topic of focus for our CR Controlling department. Our aim is to continuously improve and quantify the contributions made by our business activities to solving social challenges. This chapter describes the current project status and results on the topics "Broadband expansion", "Media literacy" and "Contribution to human rights".

ESG KEY PERFORMANCE INDICATORS

ESG KPIs (key performance indicators) are used as management tools for our CR involvement. They enable us to improve our performance on an ongoing basis. As they are relevant to our supply chain, we also address them in our Annual Report.

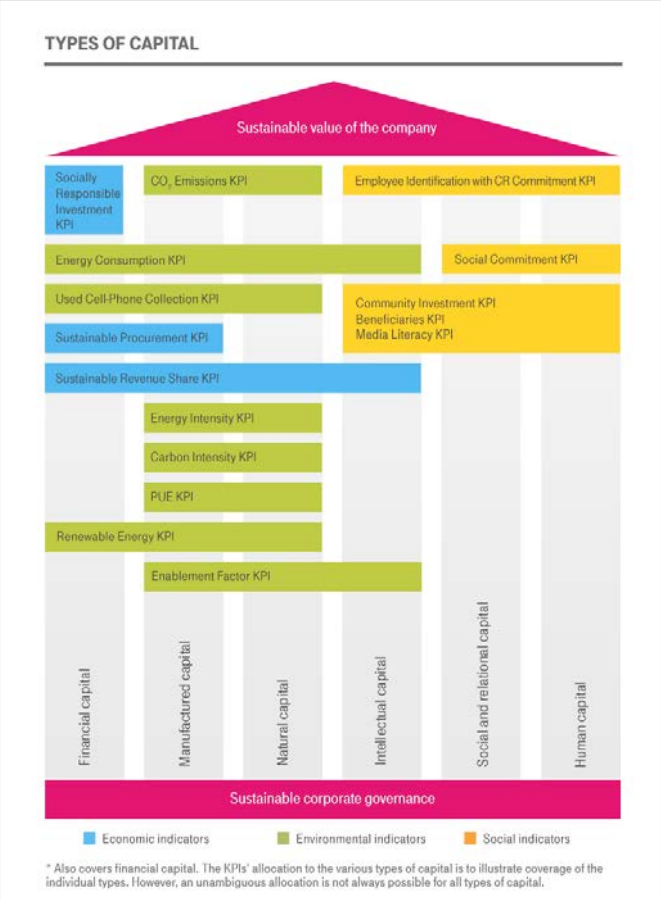
We use 13 KPIs that are valid Group-wide to manage our CR performance:

- Socially Responsible Investment (SRI) ESG KPI
- Sustainable Procurement ESG KPI
- Sustainable Revenue Share ESG KPI
- Energy Intensity ESG KPI
- Carbon Intensity ESG KPI
- Renewable Energies ESG KPI
- PUE ESG KPI
- Enablement Factor ESG KPI
- Take Back Mobile Devices ESG KPI
- Community Investment ESG KPI
- Beneficiaries ESG KPI
- Media Literacy ESG KPI
- Employee Identification with CR Commitment ESG KPI

All of Deutsche Telekom's national companies that participate in the CR data collection process are obligated to record our Group-wide ESG KPIs. These national companies represent 99 percent of the Group's net revenue.

ESG KPIs cover types of capital

For the purpose of integrated financial and sustainability reporting, the KPIs map the six types of capital addressed in these reports and therefore also reflect the essential aspects of the sustainable value of our company (see diagram).



ESG KPI REPORTING IN THE ANNUAL REPORT

We have included selected ESG KPIs in our Annual Report since 2011. We published the following KPIs in 2017 within the framework of our combined non-financial statement. A detailed description of each KPI can be found in the Indicators section, which can be accessed with the following link.

- Socially Responsible Investment (SRI) ESG KPI
- Sustainable Procurement ESG KPI
- Sustainable Revenue Share ESG KPI
- Energy Intensity ESG KPI
- Carbon Intensity ESG KPI
- Renewable Energies ESG KPI
- PUE ESG KPI for Germany
- Enablement Factor for DT Group in Germany ESG KPI
- Community Investment ESG KPI
- Beneficiaries ESG KPI
- Media Literacy ESG KPI

IMPACT MEASUREMENT AND MANAGEMENT

Our goal is to strengthen our foundation for conscious business decisions and continuously improve the social impact of our products, solutions and measures. That is why we illustrate the contributions made by our business activities to solving social challenges in the "impact measurement" focal point of our Controlling department. This way we also fulfill the expectations of our external stakeholders.

We evaluate various methods and select suitable approaches per topic for the impact measurement. We make sure that the selected methods and assumptions are traceable, are based on solid data and are valid for several years. The topic of impact measurement is not entirely new to us. We have been employing business impact measurement in strategic action areas since 2015. Based on the Total Impact Measurement and Management (TIMM) framework developed by PwC, we have begun to methodically document and financially assess the results of our business activities on the environment, society and the economy.

To ensure transparency and comparability of the results, we use conventional external frameworks to describe the effects of our contributions. Some examples of this are the Sustainable Development Goals (SDG) and the United Nations Universal Declaration on Human Rights, the National Action Plan on Business and Human Rights and the UK Modern Slavery Act. Furthermore, in addition to the perspective of our internal stakeholders, we also take into account the external stakeholder groups, such as the investment company RobecoSAM, which assesses companies in issues of sustainability. We also participate in cross-sectoral committees on impact measurement, such as the econsense initiative or GSMA, which represents the mobile communications industry. In 2017 our CR managers and experts attended a workshop together with the German Institute for Development Evaluation (DEval) to discuss current scientific methods as well as approaches and focal points for Deutsche Telekom.

After we analyzed our impact in the broadband expansion and media literacy areas in 2015, we selected human rights as the next topic for a more in-depth impact measurement. We have already seen initial results during the reporting year, which we describe in the Our contribution to respect for human rights section. These two approaches are described in more detail in the drop downs below.

In the coming years, we want to broaden our focus and, in addition to examining the social impact of our activities, also take a closer look at the positive effects of our products and services and other strategic focal points.

IMPACT MEASUREMENT: RESULTS OF THE BROADBAND EXPANSION AND MEDIA LITERACY PROJECTS

In 2015 we conducted an exemplary analysis, based on strategic core topics, of the social contribution that we made with products (Broadband Expansion) and services (Media Literacy). We made sure that the underlying methodology could also be transferred to subsequent years.

Broadband expansion

Deutsche Telekom has a strong positive effect on society thanks to its broadband expansion activities and is helping achieve the UN's sustainability goals. The company's network expansion is creating new jobs,

and hence new income. It is also facilitating access to digital services, such as those in the health care sector. Improved network coverage therefore especially benefits people in urban areas and smaller towns. The quantitative analysis shows that more than 50 percent of our expenditures for network expansion went to construction (civil engineering). This sector hence benefits most from our investments. The analysis also showed that for every million euros that we invest in broadband expansion, about 20 new jobs are created along the entire value chain, most of which in the German construction industry.

Media literacy

We analyzed the Teachtoday initiative in the strategic topic area of media literacy. This initiative contains an online platform as well as competitions and conferences on media use by children and teenagers. A positive social effect is also evidenced here. That is because the learning methods employed with Teachtoday appeal to multiple senses. According to PwC's results, such methods are more than twice as effective as learning methods that only appeal to one sense. In line with the TIMM framework, we also use the so-called educational function for analyzing the value contribution. The analysis shows that for every euro we invest in media literacy measures, the Social Return on Investment is more than two euros. This means that society benefits twice from our expenditures on specific media literacy measures.

IMPACT MEASUREMENT: OUR CONTRIBUTION TO RESPECT FOR HUMAN RIGHTS

Due to the ever-increasing importance of the topic among our customers and in society in general, we focused our impact measurement on human rights in 2017. We examined not only our own companies but our partners along the supply chain as well.

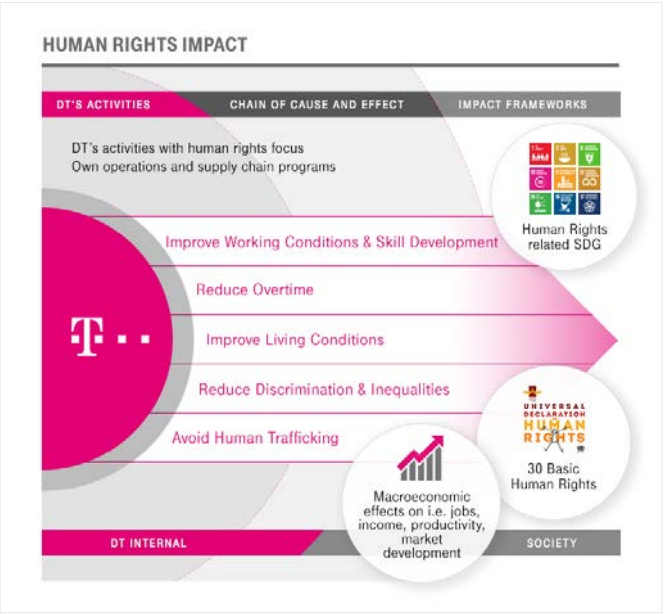
We began identifying the important effects of our human rights commitment during the reporting period. Some of the issues we examined were salaries and benefits, working hours regulations, continuing education as well as maintaining a high standard of health protection, diversity, integrity, compliance and environmental protection. In developing and newly industrialized countries, the focus of our activities is on improving working and living conditions, fighting discrimination and forced labor and helping promote respect for human rights.

Our commitment to human rights is not limited to our role as a responsible employer in our international subsidiaries. We also pursue a partnership-based approach to supplier management. We regularly verify the effect of our activities by means of human rights impact assessments, employee relations policy reviews and on-site inspections at our suppliers' place of business.

Everyone involved benefits from our commitment to protecting the rights of workers – even in the business respect. That's because better working conditions have a positive effect on employee satisfaction, loyalty and motivation and decrease the staff churn rate, thereby increasing productivity and improving product quality.

We will further specify the above-mentioned interdependencies in 2018. We will then integrate the results into our strategic orientation, including suitable metrics and reports, if possible.

The following diagram illustrates our approach:



VALUES AND GUIDING PRINCIPLES

Corporate responsibility (CR) is based on shared values. To solidify our value-based corporate culture, we convey the basic values of our company to all employees through binding Guiding Principles. We use various measures such as the annual "Guiding Principles Day" to remind employees of these values again and again, entrenching them in our everyday work. And the measures have been successful. According to our pulse survey in November 2017, 77 percent of our employees believe that the Guiding Principles are applied to our everyday work. The approval rating has therefore continued to remain at the same high level as in 2016.

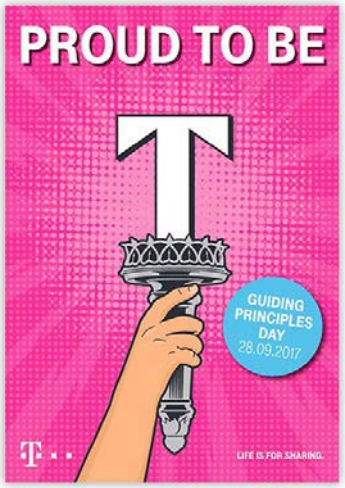
Our Code of Conduct and our Code of Human Rights & Social Principles (formerly: Social Charter) are other tools that we use to ensure that our Group and our partners show corporate responsibility in their conduct. Our compliance management system, which makes sure that our business activities are in compliance with laws and regulations, is based on these documents.

PROUD TO BE T – OUR GUIDING PRINCIPLES DAY

In September 2017 we held our eighth International Guiding Principles Day throughout the Group. The Guiding Principles were introduced in 2009 with the objective of defining a common system of values for all Deutsche Telekom employees worldwide. This year the focus was not on one individual Guiding Principle. Instead, every employee worldwide was asked to reflect what we can be proud of at Deutschen Telekom. Under the motto "Proud to be T", all employees could upload short videos to the internal Telekom social network and share their personal "pride stories" prior to Guiding Principles Day. A contribution was made to a charitable organization for each shared video.

On the actual Guiding Principles Day, work pride was a much-discussed topic throughout the entire day and a montage of the video contributions was shown. In addition to a central event in the foyer of Deutsche Telekom Headquarters in Bonn, there were keynote speeches about what we can be proud of as Deutsche Telekom. The event's opening was transmitted live, while the individual keynote speeches were recorded for later viewing. In addition to the many different team activities, central international activities also took place, all in connection with the event's motto.

In total, more than 30 interactive keynote speeches took place worldwide. In addition, more than 200 videos were uploaded, thanks to which EUR 7 500 were donated to the Deutschland Hilft (Germany Helps) action group.



COMMITMENT TO THE GERMAN "CODE OF RESPONSIBLE CONDUCT FOR BUSINESS"

We were among the first to sign the German Code of Responsible Conduct for Business, which was presented to the public in November 2010. All of the members of our Board of Management signed the code, making an express commitment to responsible corporate governance in line with the principles of the social market economy, to fair competition, cooperation with employee representatives, business excellence and sustainability. We have incorporated this commitment into our actions and have assumed a leading role in putting our commitment into practice.

In the spirit of the code, we feel obligated to engage in sustainable business practices and responsible corporate governance for the good of the people. We are continuously working to ensure that these requirements are implemented in our core business and our supply chain. In addition, we take responsibility for our employees and our social environment. We work to guarantee respect for human rights without exception.

We use our products and services to connect people and to increase the productivity of many processes. In this way, we help ensure that Germany and Europe can continue to make strides in international competition and that our well-being can continue to grow. Our smart digital solutions are creating new ways to effectively address social challenges such as climate change. Our goal is to simplify our lives for the long term. Our network helps us implement this broad social mission by acting as a lifeline: fast, reliable, secure and easily accessible to everyone. Just like all of our activities, these efforts are focused on people. We provide transparent information on our plans and technologies, engage in fair practices and are always open to dialog.

In line with the code, we continue to expand our leading position as a sustainable company as well as our ongoing efforts to optimize our value-added processes. To do so, for instance, we are increasing the energy and resource efficiency of our networks, services and products. In this way we are reducing the environmental impact and CO_2emissions produced by our business activities. In 2014 our Board of Management approved a Group-wide climate protection target for 2020. Building on this work, we have been implementing an integrated climate strategy since 2015. We also offer our customers sustainable products and services and encourage our over 30,000 suppliers to do business with an equal focus on sustainability. To assist this process, we engage in various activities such as a systematic supplier development program and complete audits and training measures. We also train our buyers on sustainability criteria in procurement. In these efforts – just like in everything we do involving our diverse stakeholders – we primarily rely on partnership and dialog.

As a responsible employer, we see an opportunity in digitalization to continue to improve employee cooperation. Our future work concept explains our vision of the working world of the future. The concept makes room for virtual collaboration and other new ways of working. Digital learning and working methods are also part of the future standard. Employees can enroll in our Massive Open Online Courses (MOOCs) or continue their education with learning games and short learning units when they are on the road. In 2017 more than 30 percent of all learning hours at our company were completed in digital form, a number we hope to increase to 60 percent in 2020. Our working world has also become more appealing in the spatial sense. We successfully completed our reconstruction activities at the Group headquarters in Bonn and at the Hamburg and Frankfurt locations in 2017.

We want our employees to have their say at our company – regardless of their position in the corporate hierarchy – and promote an active feedback culture to this end. We use the advantages of digitalization for this as well; for example, with our social network YAM, which has about 115,000 users Group-wide. Our employees can not only obtain comprehensive information on YAM but can also engage in cross-hierarchical dialog and raise topics that are important to them for discussion within the Group. Another key element of our feedback culture is our Group-wide employee survey.

Digitalization not only affects cooperation but our employees' health as well. We started a three-year joint project with BARMER in 2017 that examines how corporate health management will have to change in a digital working world of the future.

Our social commitment, however, is not just to our customers, partners and employees. We feel it is our responsibility to support the development of media literacy in our community. Our efforts in this area include the Teachtoday initiative, which promotes safe and competent media use. For example, around 120 children discussed the topic of data privacy at our 2017 Summit for Kids. We also redesigned our website www.medienabersicher.de in 2017, where we present our activities for increasing media literacy and protecting minors.

All our efforts regarding CR were rewarded in 2017, when we were named the winner of the German Sustainability Award in the Large Enterprises category.

SUSTAINABLE FINANCE

Companies that rely on sustainable business practices are more competitive in the long term. Analysts from Deutsche Asset & Wealth Management and researchers at the University of Hamburg collaborated to analyze more than 2,000 studies on the topic. Their conclusion: The business case for sustainability has a sound empirical basis, and the vast majority of the studies analyzed pointed to a positive relationship between sustainability and financial performance. This is why investors who are interested in sustainability tend to focus on long-term yields instead of short-term profit. Socially responsible investment (SRI) can be an important component when it comes to securing capital for Deutsche Telekom AG in the long term.
Our contribution to the SDGs

SRI investment products consist of securities from companies that have passed an audit conducted in accordance with environmental, social, and governance (ESG) criteria. This is why the development of demand for T-Shares from socially responsible investors serves as an indicator for assessing our sustainability performance. With our Socially Responsible Investment ESG KPI we measure how the financial markets perceive our CR activities. Investors concerned with sustainability often refer to ratings published by specialized SRI analysts. For this reason the rating given to our company by SRI analysts has an impact on our ability to win over and retain socially responsible investors and achieve our goal of keeping our company's medium and long-term cost of capital at a low level.

An increasing number of investors are responding favorably to the concept behind the UN's Sustainable Development Goals (SDGs). This is especially true with regard to the future orientation of the SDGs. It appeals to investors who are interested in companies engaging in more transparent reporting on their long-term strategic orientation and prioritization. In order to measure and quantify the effects of our activities, we started an Impact Measurement pilot project in 2017. This way we want to make our contribution to achieving the SDGs transparent.

We use different formats – both in our reporting as well as in direct dialog – to inform SRI analysts and investors of our CR activities. More and more investors and rating agencies are interested in receiving information on our CR activities. Investors not classified as SRI investors, like Morgan Stanley, JP Morgan, Société Générale and HSBC are beginning to organize SRI conferences as well. Deutsche Telekom is regularly invited to present our CR strategy and commitment as best practice at these conferences.

INVESTOR COMMUNICATION

We have been publishing important Deutsche Telekom ESG KPIs in our Annual Report for several years. Financial market players interested in sustainability can also review ESG information in the Socially Responsible Investment (SRI) section on our investor relations portal. Interested parties can find additional information on these topics in the CR rating info boxes provided as a supplement to this CR report.

In addition to our reporting activities, we also engage in targeted dialog with investors. For example, the CR and Investor Relations (IR) departments jointly held several Socially Responsible Investment (SRI) roadshows, for instance in France and the USA, at which we offered to answer critical questions from our investors. We also held conference calls to keep interested investors informed and responded to numerous direct requests for information. In addition, we attended SRI conferences, organized conference calls and web conferences, and answered numerous direct queries from rating agencies, analysts and investors.

We covered the entire spectrum of ESG criteria: governance structure, data protection and data security, corporate responsibility controlling, sustainable supply chain, human rights, climate protection and business impact measurement.

CURRENT POSITION IN RANKINGS AND RATINGS

Deutsche Telekom's ESG (environmental, social and governance) performance is assessed within the scope of CR ratings, which provide investors with valuable information for their investment decisions.

As in previous years, the T-Share was again listed in leading sustainability indexes such as the DJSI World and the DJSI Europe Index from RobecoSAM in 2017. In addition, the rating agency oekom once again singled us out as the world's best telecommunications company in terms of ecological and social performance. We qualified for the A list of internationally leading companies in the CDP climate protection ranking for the second time in 2017. CDP commends companies that report their CO_2 emissions in an extremely transparent and detailed manner. In addition to making it onto the A list, we were also included in the STOXX Global Climate Change Leaders Index. We were also listed in the STOXX Global ESG Leaders Index for the seventh year in a row – as well as in the iSTOXX SD KPI since 2017. Once again, our share was listed in the FTSE4Good index and the UN Global Compact 100 index in the reporting year. We were deemed to be an investible stock by the Fair World Fund for the first time in 2017. The Fund focuses on the topic of "development, international fairness and sustainability". At the beginning of 2018 we were also named one of the most ethical companies worldwide by Ethisphere, an institute that promotes ethical business methods. We are the only German company among the 135 commended companies.

COMBINED NON-FINANCIAL STATEMENT IN THE ANNUAL REPORT

In 2014 the European Parliament and the EU member states adopted a directive that expands the reporting obligations of large, capital-market-oriented companies. The CSR Directive obligates such companies to

report on important non-financial aspects, such as environmental, social and employee concerns as well as protection of human rights and combating corruption and bribery. Germany enacted this directive as national law in 2017 under the CSR Directive Implementation Act.

Deutsche Telekom's combined non-financial statement is contained in the management report of the 2017 Annual Report.

TAX POLICY GUIDELINES

The Group Tax department is responsible for ensuring that the Deutsche Telekom AG Group pays taxes and duties at the national and international level in accordance with the applicable statutory provisions.Group Tax makes sure that the Deutsche Telekom Group complies with all its tax obligations in Germany and abroad, in particular that it pays the taxes in accordance with the local laws and regulations applicable to the individual Group entities. This includes the Group's income taxes, which must also be regularly reported in our IFRS financial statements, as well as VAT and income tax on salaries payable within the context of customer transactions and for Group employees. Group Tax also ensures that the corporation has an efficient tax structure within the framework of German and foreign tax law as applicable in each country, i.e., that the Group does not carry any unnecessary tax burden. The goal is to achieve sustainable tax efficiency for the Group, something in which transparent, reliable cooperation with local tax authorities is deemed to be indispensable.

In addition, Group Tax also has the ambition to contribute as much as possible to the success of Deutsche Telekom's operations, e.g., by providing detailed tax advice regarding new business models or innovative technological developments. In such matters, the department is particularly focused on immediately clarifying any unresolved tax law-related issues as well as providing practical solutions to meeting all applicable tax requirements.

The tax strategy – Tax Compliance, Sustainable Tax Efficiency, Tax as Valued Business Partner – was also adopted by the Deutsche Telekom Board of Management.

SOCIALLY RESPONSIBLE INVESTMENT STRATEGY FOR DEUTSCHE TELEKOM PENSION FUNDS

We are fully committed to sustainable finance. Correspondingly, we also apply our sustainability principles to the assets of the Telekom Pension Fund. We have pursued a sustainable investment strategy for the selection of these capital assets since 2013. In addition to financial aspects, we also take into account ecological and social principles as well as guidelines for good corporate governance.

In 2017 we refined our investment strategy. We specified the list of negative criteria we employ and added to it best-in-class strategies and approaches to commitment. Accordingly, excluded from investment are companies that manufacture or do business with so-called controversial weapons (for example, anti-personnel mines, cluster ammunition, nuclear weapons, biological or chemical weapons). Also prohibited are investments in companies that have repeatedly violated the principles of the UN Global Compact.

We have also defined a best-in-class approach. Our investment managers select companies that boast the best sustainability performance in their respective sectors in which to invest. A decision was also made to effectively support the Sustainable Development Goals (SDGs) as shareholders with voting rights (shareholder engagement).

The investment managers will be selected based on their expertise in ESG issues. With this approach we aim to align attractive expected returns and sustainable value orientation with each other. By investing in stable values, we want to fulfill our fiduciary responsibility to our employees regarding capital investment. Our goal is also to avoid reputation risks and larger risks of loss.

SUSTAINABLE DEVELOPMENT GOALS (SDGS)

The member states of the United Nations (UN) adopted the 2030 Agenda for Sustainable Development in 2015. The Agenda's aim is to enable economic development and prosperity – in line with social justice and while taking into account the ecological limits of global economic growth. The Agenda applies equally to all nations of the world. All emerging and developing economies as well as industrial nations should play their part.

The core of the 2030 Agenda comprises 17 Sustainable Development Goals (SDGs). They officially went into effect in January 2016. The SDGs cover all three dimensions of sustainable development – social, environmental and economic – for the first time. Politicians, civil society and the business community must cooperate closely in order to achieve these ambitious goals. As such, companies are also called upon to make concrete contributions.

Deutsche Telekom has accepted this task and emphatically supports the Sustainable Development Goals. Many of our products, services, and activities that we present in this section already allow us to make such a contribution.

OUR CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS

Information and communication technology (ICT) has the potential to help achieve the SDGs. This was the result of a study conducted in July 2017 by the International Telecommunication Union, a special agency of the United Nations. When used correctly, ICT can accelerate innovation and change, thereby supporting sustainable development.

We want to utilize this potential. Our network infrastructure offers the technological foundation for diverse and innovative approaches for solving social and ecological challenges - and hence also for achieving many SDGs. That's why we believe we can make the biggest impact on SDG 9: "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation."

The following chart illustrates the “enablement-effect” of our business activities: Our network infrastructure as well as our products and services lay the foundation for contributions to further Sustainable Development Goals, in particular to number 2, 3, 4, 7, 11, 12, 13 und 15.

As a responsible employer (SDG 8), we greatly value employee participation and a working environment that is fair and respectful; we encourage diversity and support our employees on their journey toward the digital working world. Furthermore, many of our products, services and activities make a concrete contribution to achieving additional SDGs. Our e-health services, for example, help improve medical care (SDG 3). Our broadband expansion is giving many people access to digital educational media (SDG 4) and is actively involving us in the construction and expansion of high-quality infrastructure and promotion of innovation (SDG 9). Many European cities are able to use our Smart City solutions to reduce traffic, control their street lighting in a needs-based and energy-efficient manner and increase security (SDG 11). Our customers can use our Smart Home solutions to more effectively monitor, control and reduce their energy consumption. These and many other solutions help to reduce emissions and thereby significantly contribute to climate protection (SDG 13). And our cloud solutions make it possible to reduce energy consumption and conserve other resources as well (SDGs 12 and 13).

The following overview illustrates our contribution to the SDGs and refers to specific examples from the current CR report.

Since 2016 we have also been highlighting our contribution to the SDGs in our Annual Report. We indicate passages in our management report (a part of the Annual Report) that are relevant for the SDGs with a corresponding icon. We've decided to use this icon in this CR report as well.

Achieving more together: Cooperation for sustainable development
We cannot overcome global challenges alone. That is why we are committed to many initiatives, both within our own industry and in other sectors. The following institutions have started committees, working groups and initiatives with direct SDG relevance and in which we are involved: UN Global Compact, GSMA (an association representing the interests of mobile operators worldwide), GeSI (Global e-Sustainability Initiative) and Econsense.

OUR CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS

Many of our products, services and activities contribute to achieving the SDGs. In the area of the SDGs 3, 4, 5, 8, 9 and 13 this contribution is especially significant. They are: Good health and well-being, quality education, gender equality, decent work and economic growth, innovation and infrastructure, reduced inequalities, responsible consumption and climate action.

SDG	Target	Our contribution	Find out more
	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	We are committed to **sustainable growth**, provide **excellent working conditions** for our current and future employees and keep working toward a **more sustainable supply chain**.	▪ Responsible and agile employer ▪ Protecting human rights ▪ Four new additions to supplier development program
	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	We keep pushing the **network infrastructure build-out** forward and adding **more innovative, sustainable products** to our portfolio.	▪ Network expansion ▪ New 5G communications standard ▪ Sustainable product portfolio ▪ M2M communication: Digitalization opportunities ▪ Supporting start-ups: creating space for ideas
	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Our efficient **Smart Agriculture** ICT solutions allow for higher harvest yields while reducing the use of resources such as seeds, water, fertilizers and energy. What's more, our narrow-band radio communications also help maintain biodiversity.	▪ Use narrowband technology to combat bee mortality
	Ensure healthy lives and promote well-being for all at all ages	We promote health with our e-health solutions for the improvement of medical care and a number of health measures for our employees.	▪ Digital healthcare ▪ The Sea Hero Quest dementia study ▪ Occupational health and safety ▪ Mobile communications and health (EMF)
	Ensure inclusive and quality education for all and promote lifelong learning	We invest heavily in the **training and development** of our approx. 225,000 employees. In addition, we promote the development of **media skills**. The Deutsche Telekom Stiftung foundation supports a large number of **STEM projects**.	▪ Training and development ▪ e-learning portfolio ▪ Teachtoday ▪ Deutsche Telekom Stiftung ▪ Partner for "Deutschland sicher im Netz" and BAGSO ▪ Integrating refugees in the labor market

	Achieve gender equality and empower all women and girls	We are committed to the systematic **promotion of women** in management, supervisory boards and STEM professions. Our employees benefit from a number of different offers we provide to improve their **work-life balance**. We expressly expect our **suppliers** to ban gender discrimination.	▪ Employee diversity and equal opportunities ▪ Women's STEM Award ▪ Encouraging diversity in education ▪ Commitment to increasing the number of women in managerial positions ▪ Flexible working hours models expanded further ▪ Supplier Code of Conduct
	Ensure access to affordable, reliable, sustainable and modern energy for all	Our integrated climate strategy increases the share of green energy of our total energy consumption.	▪ More green energy at European national companies ▪ Renewable Energy ESG KPI
	Make cities inclusive, safe, resilient and sustainable	Our innovative solutions help shape the transformation of cities into intelligent urban spaces (**smart cities**).	▪ Smart City
	Ensure sustainable consumption and production patterns	We continually work on offering more **sustainable product solutions** and promoting **more sustainable production patterns** in the supply chain. At the same time we are committed to **avoiding waste and to the recycling of valuable natural resources**.	▪ Sustainable product portfolio ▪ Sustainable supply chain ▪ Responsible procurement of raw materials ▪ Waste reduction and recycling ▪ Used cell-phone collection ▪ Recovering tantalum
	Take urgent action to combat climate change and its impacts	We help protect the climate with **measures conducted at the Group** (energy efficiency and use of renewable energy) as well as with our **sustainable products and services** based on our integrated climate strategy.	▪ Climate protection strategy ▪ Climate protection measures ▪ Sustainable product portfolio ▪ Energy-efficient networks ▪ Energy efficiency in buildings ▪ Climate-friendly mobility
	Protect, repair and promote sustainable use of terrestrial ecosystems	Our efficient **Smart Agriculture** ICT solutions allow for higher harvest yields while reducing the use of resources such as seeds, water, fertilizers and energy. We also conduct **projects to protect biodiversity**. We require our **suppliers** to protect the environment and use resources responsibly.	▪ Connected agriculture ▪ Protecting biodiversity ▪ Supplier Code of Conduct
	End poverty in all its forms everywhere	By **expanding our networks**, we create the conditions for economic and social participation, among other things providing access to education - the lack of which is one of the main causes of poverty. We expect our suppliers to pay the minimum wages as set forth in the ILO Convention. We have explicitly formulated this in our Supplier Code of Conduct.	▪ Social commitment ▪ Net expansion ▪ Supplier Code of Conduct

Ensure availability and sustainable management of water and sanitation for all	Our efficient **Smart Agriculture** ICT solutions help reduce water consumption and use of fertilizers. Also, our **Smart Metering** solution allows for exact measurement and control of water consumption.	▪ Smart Home
Reduce inequality within and among countries	We employ adequate measures to connect **the unconnected, providing access to the digital world** for all.	▪ Diversity and equal opportunities ▪ Teachtoday ▪ Deutsche Telekom Stiftung ▪ The Yes, I can! initiative ▪ Deutschlandstiftung Integration/"Geh Deinen Weg" (German Foundation for Integration/Go your own way) ▪ The Welcome scholarship program ▪ Internship PLUS direct entry ▪ Accessible products and services
Conserve and sustainably use the oceans, seas and marine resources	We help reduce water consumption in agriculture and in private households through the use of ICT.	▪ Smart Home
Promote just, peaceful and inclusive societies	We have clearly expressed our commitment to complying with ethical principles and current legal standards. This commitment has been incorporated in our Guiding Principles and **Code of Conduct**. We also operate a comprehensive **compliance management system**. All our activities are compliant with legal regulations and our Binding Corporate Rules on Privacy.	▪ Compliance ▪ Privacy and data security
Strengthen the means of implementation and revitalize the global partnership for sustainable development	We collaborate with associations, institutions and companies **at the national and international levels**.	▪ Overview of memberships and collaborations ▪ Sustainable Finance

WE'RE DOING SOMETHING! - EMPLOYEE COMMUNICATION

We started a poster campaign in the summer of 2017 to create awareness of the SDGs among out employees. To this end, we first distributed posters at our Bonn headquarters and hung them in high-traffic zones. In addition to illustrating all the SDGs, the posters also show Deutsche Telekom's contribution to achieving the goals. The posters are available for download here.

ALLOCATING THE SUSTAINABLE DEVELOPMENT GOALS TO OUR BENCHMARKS

Our commitment to sustainability also includes making a positive contribution to achieving the SDGs. In particular, we contributeto goals no. 3: Good health and well-being, 4: Quality education, 5: Gender equality, 8: Decent work and economic growth, 9: Industry, innovation, and infrastructure, 11: Sustainable cities and communities, 12: Responsible consumption and production and 13: Climate action.We record environmental, social and governance (ESG) performance indicators as part of our CR controlling system. The following overview shows that our KPI system can be applied to the SDGs and also makes our positive contributions measurable and visible. We have strong control parameters for those SDGs that are very relevant to our business model in particular. The clear SDG relationship that exists today will continue to be refined by means of our control and monitoring activities.

SDG	Benchmark
1 NO POVERTY	Our network infrastructure, products and services indirectly contribute to the achievement of SDG number 1.
2 ZERO HUNGER	Product innovations for maintaining biodiversity and for improving agriculture through NB-IoT (Narrowband Internet of Things).
3 GOOD HEALTH AND WELL-BEING	▪ eHealth and NB-IoT roll-out ▪ Health rate ▪ Accident rate ▪ Employee satisfaction
4 QUALITY EDUCATION	▪ Media Literacy ESG KPI
5 GENDER EQUALITY	▪ Percentage of women in total workforce ▪ Percentage of women in middle and upper management
6 CLEAN WATER AND SANITATION	▪ Based on our business activities, number 6 is not among the priority SDGs.
7 AFFORDABLE AND CLEAN ENERGY	▪ Renewable Energies ESG KPI
8 DECENT WORK AND ECONOMIC GROWTH	▪ Sustainable Procurement ESG KPI ▪ CR-Qualified Top 200 Suppliers ESG KPI ▪ Employee Satisfaction KPI ▪ Social Performance Report
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	▪ Network expansion in Germany ▪ Expenditures for research and development

- Sustainable Procurement ESG KPI
- CR-Qualified Top 200 Suppliers ESG KPI
- Refugee assistance: number of apprentice and internship positions, number of corporate volunteering projects and more
- People with disabilities

- Smart Innovation (pilot phase) NB-IoT roll-out
- Sustainable Revenue Share ESG KPI

- Take Back Mobile Devices ESG KPI
- Sustainable Revenue Share ESG KPI
- CR-Qualified Top 200 Suppliers ESG KPI
- Waste
- Online billing
- Recovered copper cables

- Energy Intensity ESG KPI
- Carbon Intensity ESG KPI
- Renewable Energies ESG KPI
- PUE ESG KPI
- Enablement Factor ESG KPI
- CDP Supply Chain Coverage ESG KPI

Based on our business activities, number 14 is not among the priority SDGs.

Product innovations for maintaining biodiversity and for improving agriculture through NB-IoT (Narrowband Internet of Things)

- Security Awareness Index
- Compliance-relevant tip-offs (for example "Tell me" portal)
- Annual transparency report

- Public-private partnership infrastructure expansion
- Cooperation in the area of societal engagement: Community Investment ESG KPI and Beneficiaries ESG KPI
- Socially Responsible Investment ESG KPI
- Listing in ratings and rankings

COMMENDATION FOR OUR COMMITMENT

For its commitment to the UN's goals, the consulting firm PricewaterhouseCoopers honored Deutsche Telekom with the Building Public Trust Award for exemplary reporting practices. The jury selected Deutsche Telekom as best company in the "SDGs" (Sustainable Development Goals) category for its 2016 Annual Report. According to the jury, Deutsche Telekom does the best job of systematically analyzing the contribution that its products, services and activities make to fulfilling global sustainability goals. With this new prize category, the panel of experts takes into account current national and international reporting developments.

ADDED VALUE AND MATERIALITY

Which sustainability topics are relevant for our revenue development, capacity for innovation and reputation? Which topics matter to our stakeholders, for example our shareholders, customers and employees, as well as the public? In what areas and in what ways do our business operations impact society and the environment? We need to know the answers to these questions if we want to be successful in financial and ecological terms as well as in the eyes of society, which is why our materiality process is not solely based on our own perspective but also takes into account the needs and interests of our stakeholders.

BUSINESS ACTIVITIES AND ORGANIZATION

With 168 million mobile communications customers, around 28 million fixed-network and around 19 million broadband lines, we are one of the leading integrated telecommunications companies worldwide. We offer our consumers fixed-network/broadband, mobile, Internet, and Internet-based TV products and services, as well as ICT solutions for our business and corporate customers. We have an international focus and are represented in more than 50 countries. With a staff of some 217,300 employees throughout the world, we generated revenue of 74.9 billion euros in the 2017 financial year, around 67 percent of which was generated outside Germany (December 31, 2017).

We believe that economic, social, and ecological aspects can be reconciled; sustainability is the guiding principle behind all our actions. A range of sector-specific and general conditions are crucial to the success of business activities. These include first-rate quality at reasonable costs – in data privacy and security, in customer service, in network build-out and in materials procurement – as well as qualified staff and good working conditions within our own Group as well as at our suppliers. It is also important to consider the potential consequences of climate change for our business activities: for example, to construct our network infrastructure in such a way that it is protected from severe weather conditions, changes in temperatures and higher wind speeds. We also help our customers reduce their carbon footprint with innovative products and services. Furthermore, we want to reduce the Group's CO_2 emissions despite rapid growth in data traffic and the network build-out that this requires. We do everything we can to ensure that our actions are socially acceptable, even beyond our core business. For us, this means conducting ourselves in a way that is ethical and compliant with the law and informing and involving our stakeholders in a transparent way.

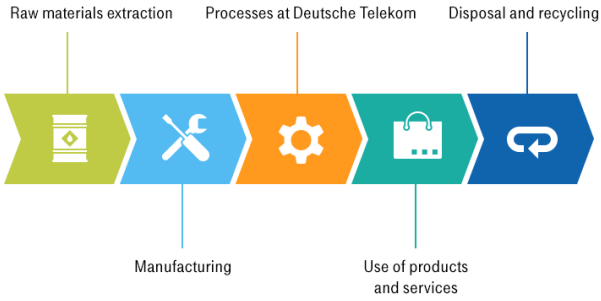
You can find additional information on our business development in the 2017 Annual Report.

As illustrated in the diagram, our Group consists of five operating segments.

THE ORGANIZATIONAL STRUCTURE AT A GLANCE

We strive to make an effective contribution to sustainable development along all parts of our supply chain.

SIMPLIFIED ILLUSTRATION OF DEUTSCHE TELEKOM'S SUPPLY CHAIN



MATERIAL SUSTAINABILITY TOPICS: SYSTEMATIC PROCESS BASED ON RECOGNIZED METHODS

We systematically identify which topics are of particular importance in defining Deutsche Telekom's sustainability management and sustainability reporting focus from the perspective of our stakeholders as well as from an internal corporate perspective. The analysis is based on knowledge from previous year's results and assesses these in the light of recent developments.

Since 2015, we implement this materiality process at our company in compliance with the methodology of the Global e-Sustainability Initiative (GeSI). This methodology covers 55 topics that are material to the ICT industry. These can be placed into nine categories: digital inclusion, employee relationships, climate change, circular economy, sourcing and manufacturing, customer relationships, freedom of expression and privacy, governance and management, and local community and environment impacts. The advantage of using the GeSI methodology is that it allows us to focus on our core business as an ICT service provider. The materiality topics have been developed to pertain to a variety of companies and are therefore recognized in the industry

Material topics from the stakeholder perspective
In our continuous online survey, our stakeholders can not only rate topics according to their importance but also assess our performance in the respective areas (click herefor the online survey). In the survey, stakeholders are asked to rate the topics that have been identified through our internal materiality process. This ongoing, logical process makes it possible to achieve comparable results. To help us identify which aspects are most material for our stakeholders, we assessed the results of the survey for the period from January 1, 2016, through December 31, 2017. The assessment was based on evaluations submitted by 218 people:

- 93 customers
- 55 employees and potential employees or employee representatives
- 17 analysts and investors
- 15 participants from the worlds of science, research and education
- 19 NGO representatives
- 4 suppliers
- 3 representatives from regulatory authorities and political decision-makers
- 12 employees who associated themselves with none of the groups mentioned

In addition to giving stakeholders a chance to rate the importance of topics and assess our performance, the survey also includes open-ended questions. You can find our stakeholder feedback from the reporting period here.

Stakeholders also have the opportunity to assess our performance in different areas. Our stakeholders rate our performance high in the key areas of privacy, data security and cyber safety. In contrast, they see potential for improvement in the topics of open sourcing and conflict materials (as of December 2017).

Material topics from the corporate perspective
New developments that are of importance to our sustainability engagement are also evaluated internally. We hold workshops at the Group when required so that various topics can be weighted internally. Most recently in November 2015, numerous experts from different departments, including Human Resources, Innovation and Communications, participated in one of these workshops. They went through the 55 GeSI topics and identified those that had the most impact on five key value drivers behind our business success from a corporate perspective (see below). These value drivers are also based on the GeSI methodology:

- **Technology and innovation**: Our customers' increasing demand for secure, encrypted services has made topics like data security and cyber security two of the most significant drivers of innovation at our company.

- **Revenue growth**: We are able to tap new markets and reach out to new customers through network expansion. High service qualityis decisive when it comes to customer satisfaction and therefore has a direct impact on winning over customers and customer loyalty. Customer inquiries about sustainable products are still limited in number but continue to grow, which is why this topic has been identified as an important driver

- **Business operations**: Which topics have a positive impact on business processes or help reduce costs? Above all comprehensive employee involvement and fundamental requirements such as data security, service quality, stakeholder involvement and compliance have an impact here.

- **Employee relations:** The topics of talent acquisition, employee retention, development and downsizing, employee involvement, employee health, safety and well-being as well as diversity and anti-discrimination also have a big impact on employee satisfaction and productivity. A service-oriented corporate culture (service quality), ethical business practices and transparency as well have a positive impact on employee relations

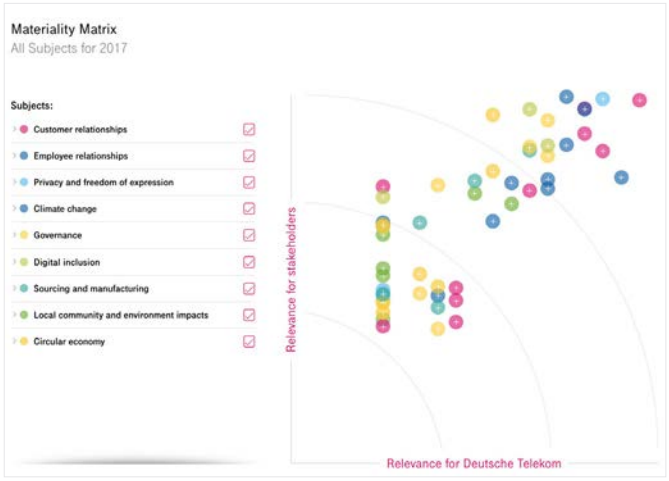
- **Reputation:** A high degree of transparency and extensive reporting create lasting trust in Deutsche Telekom. Topics such as business practices, service quality, privacy and supply chain labor standards, on the other hand, can pose risks to our reputation. If the media negatively reports on our brands, products or services in connection with these topics, this can damage our reputation.

The next workshop on internal weighing of topics is slated for the third quarter of 2018.

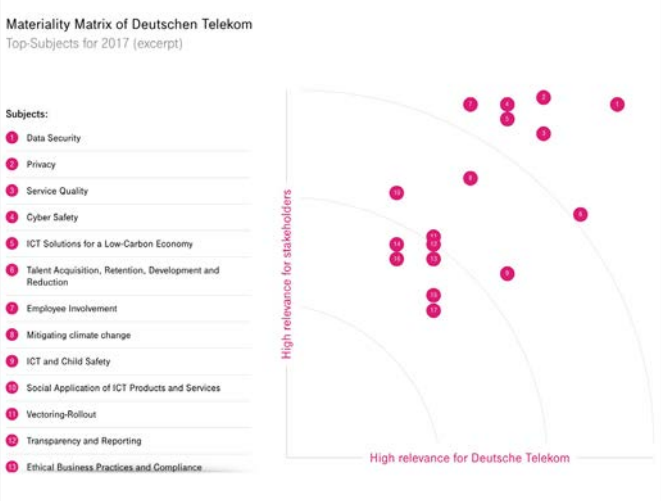
RESULTS OF THE MATERIALITY ANALYSIS

In our materiality analysis topics are rated as "very relevant," "relevant," "less relevant" and "not relevant." We translate their weighting results onto a 100-point scale. Here are the results of the analysis.

The overall result
The following illustration shows how all of the topics were rated by our stakeholders and from a corporate perspective on a scale of 0 to 100.



Top topics for Deutschen Telekom's sustainable business development
We consider all topics that achieved more than 70 points on average in the materiality process to be top topics. They are presented on a scale of 60 to 100 below.



MATERIAL ASPECTS MATCHED WITH GRI ASPECTS

The following overview indicates which GRI aspects can be matched with the material areas of the stakeholder survey.

#	Material aspects	GRI aspects	Management approach
1	Data security	Customer privacy	Customer privacy
2	Privacy	Customer privacy	Ensuring effective data privacy
3	Service quality	Stakeholder engagement	Ensuring excellent service quality
4	Cyber safety	Customer privacy	Protecting ourselves and our customers
5	ICT solutions for a low-carbon economy	Products and services	Developing sustainable products and services
6	Talent acquisition, employee retention, development and staff reduction	Employment, training and education	Preparing ourselves for the digital working world
7	Employee involvement	Labor/management relations Freedom of association and collective bargaining	Shaping change at the company How we protect human rights
8	Climate change mitigation	Emissions Energy	Protecting the climate
9	ICT and child safety	Customer health and safety	Protecting consumers and minors
10	Socially relevant application of ICT products and services	Products and services	Developing sustainable products and services
11	Network expansion	Indirect economic impacts	Expanding our infrastructure
12	Transparency and reporting	Identified material aspects and boundaries Report profile	
13	Ethical business practices and compliance	Socioeconomic compliance Anti-corruption	Ensuring integrity and compliance
14	Supply chain labor standards	Procurement practices Forced or compulsory labor Supplier social assessment	Improving sustainability in the supply chain How we protect human rights Managing sustainability in procurement processes Ensuring integrity and compliance
15	Employee health, safety and wellness	Occupational health and safety	Promoting the health of our workforce
16	Inclusion of stakeholders	Stakeholder engagement	Fostering stakeholder engagement
17	Employee diversity and anti-discrimination	Non-discrimination Diversity and equal opportunity	How we protect human rights Supporting diversity

STAKEHOLDER MANAGEMENT

As a company, we are constantly balancing the expectations of a variety of stakeholders when managing our business. That is why our success depends on recognizing the interests and demands of our internal and external stakeholders and meeting and addressing these whenever possible and reasonable. Stakeholders also expect to be kept informed of how companies are responding to their requirements. We go even further by actively surveying our stakeholders and involving them in our corporate activities.

Engaging in dialog with our stakeholders helps us identify trends early on, which fosters our innovation processes. At the same time, this strengthens existing alliances and creates new opportunities for partnerships. This is particularly important in terms of our sustainability targets, which we can only achieve in collaboration with partners from the worlds of politics (political advocacy), society, science and research, and industry.

Analysts, investors and their representatives
- Private investors
- Funds, asset managers and analyst
- (SRI) rating agencies
- Analyst organizations and associations
- Institutional investors

Customers, potential customers and their representative
- Youngsters and young adults
- Families
- Middle-aged people
- Senior citizens
- Small and medium-sized enterprises
- Large corporations
- Public authorities
- Consumer organizations and segment-specific interest groups
- Telekom Supervisory Board members

Business sector and its representatives
- DAX-listed companies
- Other large corporations
- Small and medium-sized enterprises
- Trade and industry associations
- Cooperation partners
- Competitors

Science, research and education
- CR and sustainability research institutions
- Political and business research institutions
- Universities
- Schools
- Day care centers

- Student organizations and university associations
- ICT, sociology and design research institutions

NGOs and special interest groups
- Humanitarian organizations and charities
- Business ethics groups
- Multi-thematic organizations
- Churches and their relief organizations as well as other religious and social groups
- Foundations
- Environmental protection organizations

Media
- CR and sustainability
- Players from politics and business
- Education
- Radio broadcasters, daily press, press agencies
- Online media and social networks
- Publishers
- Journalist associations/media groups
- ICT and communications

Politics
- Players at national level
- Embassies and consulates
- Supervisory and regulatory authorities
- Communities and their representatives
- International organizations
- Players at EU level

Employees, potential employees and their representative
- Employees
- Managers
- Board of Management
- Applicants and prospective employees
- Trade unions and works council
- Employees and students
- Endowed chairs
- Apprentices/trainees

Suppliers
- Auditors and certification bodies
- Sub-suppliers
- Consultants
- First-tier suppliers

Stakeholder-Groups	Top 5 Subjects:
Analysts, investors and their representatives	▪ Cyber safety ▪ Privacy ▪ ICT Solutions for a Low-Carbon Economy ▪ Employee involvement ▪ Mitigating climate change
Customers, potential customers and their representatives	▪ Data security ▪ Employee involvement ▪ Privacy ▪ Cyber safety ▪ ICT Solutions for a Low-Carbon Economy
Science, research and education	▪ Employee involvement ▪ Socially relevant application of ICT products and services ▪ Cyber safety ▪ ICT Solutions for a Low-Carbon Economy ▪ Privacy
NGOs and special interest groups	▪ Privacy ▪ Cyber safety ▪ Socially relevant application of ICT products and services ▪ Transparency and reporting ▪ ICT and child safety
Politics	▪ Privacy ▪ Cyber safety ▪ Socially relevant application of ICT products and services ▪ Transparency and reporting ▪ ICT and child safety
Employees, potential employees and their representatives	▪ Data Security ▪ Privacy ▪ Cyber safety ▪ ICT Solutions for a Low-Carbon Economy ▪ Employee involvement
Suppliers	▪ Privacy ▪ Cyber safety ▪ Mitigating climate change ▪ Talent acquisition, retention, development and staff reduction ▪ Data Security
Analysts, investors and their representatives	▪ All top-subjects of the materiality analysis 2017
Media	▪ All top-subjects of the materiality analysis 2017

FOSTERING STAKEHOLDER ENGAGEMENT

We systematically encourage stakeholder engagement in our corporate activities. In 2011 we developed a strategy for stakeholder engagement in order to manage our various activities throughout the Group. The strategy is based on the three AA1000 principles developed by the NGO AccountAbility: materiality, inclusivity, and responsiveness. We reviewed compliance with these principles in 2013.

In addition to the annual stakeholder survey, we use various formats such as memberships and events to enter into dialog with our stakeholders. We also use the information of our NGO radar as well as informal exchange to inform our stakeholders about our requirements.

The feedback that we receive from our stakeholders through various channels is incorporated into our CR activities. We regularly ascertain what our stakeholders think of our activities and modify our CR strategy, if needed. To this end, we primarily use our materiality process and CR topic monitoring.

FEEDBACK FROM THE STAKEHOLDER SURVEY

Our ongoing stakeholder survey (To the survey) includes not only weighting topics (2017 results) and assessment of our sustainability performance but open-ended questions as well. Below is a summary of the most important feedback results for the 2017 reporting year, which we use to advance our CR activities.

Stakeholder recommendations on how Deutsche Telekom can further improve its corporate responsibility:
- Raising awareness of sustainable consumption among its customers (the "a new cell phone every year" principle goes against the sustainability principle
- Implementation of a renewable energies strategy
- Active marketing of products with a good carbon footprint

Requirements concerning the sustainability of Deutsche Telekom products:
- Energy efficiency
- Reusability
- Use of recycled materials

Requirements on network expansion:
- Nationwide basic service with fast Internet

Expectations on sustainability rating in the supply chain:
- Stricter analysis of sustainability risks in the supply chain

Suggestions for strengthening commitment to sustainability among employees and in the corporate culture:
- Promotion of employee networks
- Establishment of an open and non-discriminatory corporate culture
- Transparent communication especially with regard to target agreements
- Harsher consequences for misconduct

FORMATS FOR STAKEHOLDER ENGAGEMENT

The type and extent of our stakeholder engagement is based on the results of a case-related relevance analysis. Stakeholder relevance varies depending on the topic. In the sustainable finance area, for example, our investors are the most important stakeholders, which is why we are in regular communication with them. Of course, our customers play a decisive role in the development of sustainable products. The more relevant a stakeholder group is to the topic or project concerned, the more intensive stakeholder engagement can be. Depending on the intensity, we make a distinction between three types of engagement: information, dialog and participation.

Stakeholder involvement formats

Partizipation
- Stakeholder survey
- Development programs for suppliers
- YAM: information, discussion and awareness-raising
- Pilot project: making impact measurable
- Strengthening our corporate culture, encouraging a speak-up culture
- Collaboration for the protection of minors
- Cooperating in the name of security
- Co-designing Deutsche Telekom products and services in the think tank

Dialog
- 10. Sustainability Day at Magyar Telekom
- 1001 truths
- Expertise in the CR Report: You can ask Deutsche Telekom experts questions on selected topics, such as at sustainable products & services
- Magenta Security Congress
- In-house climate conference within the framework of COP23 at Bonn Headquarters
- Cyber Security Summit
- SRI roadshows
- Evaluating and implementing the EMF Policy
-

Information
- Teachtoday promotes media literacy
- Good to know: Internal CR newsletter for employees
- Data protection tips with our one-pager
- The We Care website: Publication of a new edition of the magazine

OVERVIEW OF MEMBERSHIPS AND COLLABORATIONS

Business and industry associations
- American Chamber of Commerce in Germany
- Bundesvereinigung der Deutschen Arbeitgeberverbände (BDA, Confederation of German Employers' Associations)
- BITKOM industry association
- European Telecommunications Network Operators' Association (ETNO)
- Forum Nachhaltige Entwicklung der Deutschen Wirtschaft e.V. (econsense, Forum for Sustainable Development of German Business)
- GSM Association (GSMA)
- International Chamber of Commerce (ICC)
- Bundesverband der Deutschen Industrie e. V. (BDI, the Voice of German Industry)

Climate protection and environmental organizations
- B.A.U.M. e.V. environmental management organization
- Global e-Sustainability Initiative (GeSI)
- Stiftung 2° – Deutsche Unternehmer für Klimaschutz (2° Foundation – German CEOs for Climate Protection)
- Sustainability Leadership Forum (in collaboration with B.A.U.M.)
- European School of Management and Technology (ESMT) (Sustainable Business Roundtable)
- Global Compact
- Global Compact LEAD
- Caring for Climate
- Joint Audit Cooperation (JAC)
- Deutsches CSR-Forum (German CSR Forum)

Civic and aid organizations
- Bündnis für Verbraucherbildung (alliance for consumer education)
- Charter der digitalen Vernetzung (Charter for Digital Networking)
- Deutschland sicher im Netz (Making Germany safe on the Net, DsiN)
- London Benchmark Group
- Bundesnetzwerk Bürgerschaftliches Engagement (National Network for Civil Society)

- CCCD – WIE
- Aktion Deutschland Hilft e.V. (Germany's Relief Coalition)
- Deutsches Rotes Kreuz (German Red Cross)
- DKMS Deutsche Knochenmarkspenderdatei gemeinnützige Gesellschaft mbH (German Bone Marrow Donor Center)
- Lebenshilfe e.V. aid organization
- SOS-Kinderdorf e.V. (SOS Children's Villages)
- Nummer gegen Kummer youth counseling line
- TelefonSeelsorge crisis counseling helpline
- Deutsche Telekom Stiftung (Deutsche Telekom foundation)
- Deutschlandstiftung Integration (German Foundation for Integration)
- Bundesarbeitsgemeinschaft der Senioren-Organisationen (BAGSO – German Association of Senior Citizens' Organizations)

Friedrich-Ebert-Gymnasium Bonn (a secondary school in Bonn)

- Code of Responsible Conduct for Business
- GIZ Private Sector Advisory Board

COMPLIANCE

At Deutsche Telekom AG we feel it is highly important that all of our employees and governance bodies comply with our values, rules of conduct and applicable laws at all times. Deutsche Telekom's central compliance organization (Group Compliance) plays a key role in establishing corporate governance structures and a corporate culture based on integrity. It promotes a culture and a set of values characterized by compliance at the company and encourages managers and employees to live these values. As a result, Deutsche Telekom's understanding of what compliance means far exceeds pure legal compliance in business activity, i.e., compliance with laws and internal regulations, and focuses on the integrity of employees and governance bodies.

GOALS	MEASURES	MEASURING SUCCESS
› Ensuring integrity and compliance throughout the Group and among business partners	› Compliance organization › Compliance risk assessment › Code of Conduct › Policies › Consulting › Training › Communication campaigns › Business partner audits	› "Tell me!" whistleblower portal › Transparent corporate culture › Compliance audits › Case studies › Punishing misconduct › Reporting

ENSURING INTEGRITY AND COMPLIANCE

We have clearly expressed our commitment to complying with ethical principles and current legal standards. This commitment has been incorporated in our Guiding Principles and Code of Conduct. We have introduced a comprehensive compliance management system. This is a way to effectively combat risks and make sure conduct throughout the Group is based on integrity and complies with our principles and regulations. All activities related to compliance management fulfill legal regulations and our Binding Corporate Rules on Privacy. This policy regulates how personal data is handled at Deutsche Telekom. Responsibility for the compliance management system lies with the top management level at Deutsche Telekom in the Board department for Data Privacy, Legal Affairs and Compliance. In addition, there is a member in each company of Deutsche Telekom at the Management or Board level who is responsible for compliance. The Chief Compliance Officer of Deutsche Telekom AG is responsible for the Group-wide structure, advancement and implementation of the compliance management system. This individual also heads up the Group Compliance unit. We also have compliance officers (COs) at each of our operating segments and national companies These individuals are responsible for ensuring that the compliance management system and our compliance goals are implemented on site.

Goals of the compliance management system

At Deutsche Telekom, compliance refers to following the rules and doing the "right thing", which means compliance requires all employees to act with integrity. Within the meaning of our five Guiding Principles and Code of Conduct, integrity, and therefore compliance, forms the basis of all our business decisions and activities. It defines the behavior of all our employees when dealing with customers, employees and colleagues, investors, managers and Deutsche Telekom's general environment.

The goals of our compliance activities are based on these principles, the relevant regulations and legal standards as well as on our strategic objective of becoming the leading European telecommunications provider. Specifically, the purpose is to avoid compliance violations and business decisions that are not made with integrity. In addition, compliance should be integrated early on and permanently into business processes. This reduces liability risks for the company. Furthermore, compliance contributes to ensuring that our customers perceive us as a reliable partner. We ensure implementation of our overarching compliance goals in business activities by systematically applying the compliance management system in the areas of prevention, identification and response.

Focus on prevention

Each year, we carry out a Group-wide Compliance Risk Assessment. This helps us identify and assess our compliance risks and define focal points for conducting effective preventative measures, which are compiled in our compliance program.

The goal is to make sure that the conduct of our employees is ethical and compliant at all times, which is why we have set forth clear expectations on employee conduct in our Code of Conduct. We have introduced compliance-related Group policies for this purpose, such as regulations on anti-corruption measures, gifts, invitations, and events, as well as on handling consultants and agents. A policy database makes it easy for our employees to access and follow our policies (Group-wide implementation of the Code of Conduct).

Besides regular compliance training sessions, we also carry out comprehensive anti-corruption training (see GRI 205-2). We specifically address managers to act as multipliers to further raise awareness of compliance. Their feedback is analyzed carefully and used to initiate additional training sessions or other measures, if necessary.

Employees can also visit the "Ask me!" portal to have their compliance questions answered. The “Ask me!” advisory team gives answers in

case of behavioral uncertainties. The portal contains an FAQ with exemplary cases and reliable information on laws, internal policies, and behavioral standards.

We have also introduced various measures to promote a culture of compliance at our company.

Identification and monitoring
Despite the best preventative measures, we are not always able to prevent breaches of law or serious violations of internal regulations at the company. We have created the Tell me! whistleblower portal to uncover non-compliant conduct. Our employees as well as external parties, e.g., business partners or customers, can use the portal to report misconduct (Protecting whistleblowers). Deutsche Telekom thoroughly investigates all reports within the limits of the legal framework and punishes such activity appropriately. We have introduced a Group-wide reporting process to control and monitor these activities, including regular internal and external audits of our compliance management activities.

Compliant interaction with business partners and suppliers
Our Code of Conduct specifies proper conduct for all of our employees. With our Code of Human Rights & Social Principles (a successor to the Social Charter), we make a commitment to protecting and promoting human rights including compliance with the ILO's core labor standards. Our Supplier Code of Conduct stipulates that our suppliers as well as their sub-contractors must comply with the principles and values set forth by our Code of Conduct and the Code of Human Rights & Social Principles that places suppliers under the obligation to take all steps necessary to prevent and punish active and passive forms of corruption. The Code of Conduct is part of the General Terms and Conditions for Purchasing but does not replace the laws and regulations of countries where our suppliers are active. Rather, its aim is to facilitate compliance with these laws and regulations and guarantee that they are implemented faithfully and effectively. We have been offering e-learning on compliance to our suppliers since 2014, as well as providing them with a compliance guideline.

We select our business partners based on compliance criteria and conduct risk-oriented compliance business assessments. This applies to customers and suppliers as well as consultants (Consultant Policy), sales agents, development partners, and joint venture partners.

STREAMLINED, EASIER, BETTER: A REVISED CODE OF CONDUCT

Integrity, respect and compliance with the law – this is the principle on which Deutsche Telekom's business activities are based. Our Code of Conduct sets forth the central reference framework for legally compliant and moral conduct. We revised the Code in 2017, with the goal of focusing on issues of compliance and integrity and finding a positive way to raise employee awareness of, and motivation to tackle, these issues. The revised Code of Conduct continues to provide an overview of our understanding of values and of the basic principles that guide our actions. In some places, this overview provides more detail by referring to internal policies and regulations. The Code of Conduct makes a significant contribution to our business success by providing a fixed foundation for our business activities.

RENEWED COMPLIANCE MANAGEMENT CERTIFICATION

In 2017, we once again had our compliance management system certified with a focus on anti-corruption measures. This is our way of ensuring that we can confront risks consistently and that we have established effective processes in the company. After 10 companies were audited in Germany in 2016, we had 12 international companies certified in 2017.

The certification focused on processes in Procurement, Sales, HR, and Mergers & Acquisitions, as well as on events, donations, and sponsorships. The potential danger of corruption is greatest in these areas. The auditors completed their audit of the effectiveness of our compliance management system, and the system passed with flying colors. We document details regarding audit content and corporate departments that have undergone anti-corruption audits in our audit report.

Certificates and audit assessments play an ever-increasing role, for instance in bidding processes and decisions to award bids, offering a clear advantage whenever we are in competition with other companies. External auditors previously certified our compliance management system with a focus on anti-corruption measures and anti-trust law in 2010 and 2013.

STRENGTHENING OUR CORPORATE CULTURE, ENCOURAGING A SPEAK-UP CULTURE

A compliance management system is only effective if it is actually implemented in everyday activities. This is why we started the Transparent Company Culture initiative in 2016 with the intention of encouraging integrity and a speak-up culture within our company.

We conducted a large-scale employee survey in this context in the spring of 2017 to find out more about Deutsche Telekom's corporate culture and how it is being lived – especially with a view towards compliance topics. About 52,000 employees in 25 national and international Deutsche Telekom companies took part in the online survey. There were also one-to-one interviews and discussions with focus groups. The European School of Management and Technology (ESMT Berlin) and Hertie School of Governance were our research partners in this extensive study.

The initiative was supported by an expert committee created specifically for this purpose. The committee was comprised of Deutsche Telekom employees as well as representatives from non-governmental organizations, the business and scientific communities and society. The experts' task was to guide and assess the study. The results are positive overall. The vast majority of employees is committed to Deutsche Telekom's rules and is not willing to act in an unethical manner. The strengths of the compliance culture include, among others, the clarity of the rules, the willingness of employees to report misconduct and the ethical conduct of direct supervisors. An admitted weakness is the fact that there is a small group of employees who are willing to break the rules. Identified weaknesses were intensely discussed by the Board of Management and included in a set of measures for further strengthening the value-oriented compliance culture at Deutsche Telekom.

The Speak-up Culture initiative: Constructive criticism expressly wanted
One measure from the Transparent Corporate Culture initiative is that the Speak-up Culture initiative will continue to be implemented with various focal areas. The goal of the campaign is to encourage objection within the company where this is necessary. Employees should be encouraged to correctly and successfully address grievances in critical situations, just as managers should be open to hearing these grievances. An environment should also be created wherein "critical minds" can voice their opinions. Both classroom and online courses will be offered, nationally and internationally, to this end.

WITHOUT BORDERS: WORLDWIDE COOPERATION FOR COMPLIANCE

Different legal practices and cultural values in the countries where Deutsche Telekom is active represent a significant compliance challenge. The increasingly dynamic development of global markets and intensified international competition also influence our compliance strategy.

In line with the Group's international orientation, we discuss strategic issues with an international compliance advisory team twice a year. The team is a trend-setter of sorts for designing and implementing balanced compliance structures at Deutsche Telekom. We have also been promoting Group-wide compliance cooperation for years through meetings of the representatives of all compliance organizations from our international subsidiaries.

Compliance Days in Warsaw: Be together – Talk together – Create together
The International Compliance Days took place for the 13th time in May 2017. Under the motto "Be together – Talk together – Create together", around 100 compliance officers from more than 20 countries met in Warsaw, Poland. During the two-day event, experts discussed current compliance topics such as digitalization and veto rights and attended workshops where they worked together on further refining these topics.

Deutsche Telekom rated one of the most ethical companies in the world in 2018
The Arizona-based Ethisphere Institute ranked Deutsche Telekom as one of the world's most ethical companies in 2018. We received this honor upon our first attempt, since this is the first time that we took part in this survey. In Germany, we are the sole recipient of this honor. Ethisphere commends the excellent performance of companies with the highest ethical competence worldwide. In addition to Deutsche Telekom and T-Mobile US, the ethics institute recognized another 133 companies in 23 countries and 57 industries as "2018 World's Most Ethical Companies".

PREVENTING AND FIGHTING CORRUPTION

We take many different actions and measures to prevent and fight corruption. The compliance risk assessment forms the foundation of our compliance management system. It helps us identify and evaluate compliance risks and develop appropriate preventive measures. We have established an annual process for this purpose Group-wide. It identifies responsible officers and defines clear assessment criteria that are documented in a traceable manner. The companies that will take part in the compliance risk assessment are selected using a model centered on how developed and complete their compliance programs are. 73 companies participated in the assessment process in 2017.

Our Group risk map is a key component of the compliance risk assessment that we use to assess risks that are particularly significant to our company. The risk map enables Deutsche Telekom's companies with their various business models to conduct systematic risk analyses. It currently covers 27 core risk categories ranging from corruption and anti-trust law violations to violations of the Group Code of Conduct. Each national company can add additional categories specific to their business needs. This involves defining which specific threat each risk poses to the national company and stating which measures have already been implemented to mitigate this risk. If necessary, additional measures are developed to reduce the risks to a manageable level. Responsibility for conducting the compliance risk assessment lies with the respective national company. Our central compliance organization provides support and advice in these matters.

The national companies' managing boards are informed of the results of the compliance risk assessment. Subsequently, the compliance program for the following year is defined, including specific measures and responsibilities. The managing board then passes a formal resolution to approve the program. The compliance program measures are monitored closely.

Investigation of suspected corruption based on clear criteria-
Deutsche Telekom has specified clear criteria for investigating suspected cases of corruption. We start investigations if a violation of legal or internal regulations is reported with a sufficient degree of detail. Any tips that meet this requirement are investigated thoroughly. Any violations we uncover are punished appropriately. In some cases employment relationships have even been terminated for good cause. Claims for damages may also be asserted. Any weaknesses identified in the internal control system during the investigation are systematically analyzed and remedied.

"TELL ME!" PORTAL: 146 REPORTS RECEIVE

In 2017, 146 compliance-related reports were made to Deutsche Telekom via the "Tell me!" portal (108 reports were made in the previous year). 24 of those are still being reviewed for plausibility and investigations are being made into 66 plausible reports (as of January 16, 2018). 43 of these were confirmed as actual misconduct and were punished accordingly. 12 cases are still in the investigation phase. In confirmed cases, we impose systematic sanctions that are proportionate to the act and the guilt of the perpetrator and are in line with applicable legal provisions. Most of the tip-offs received in 2017 related to potential cases of commission fraud, manipulation of targets, misappropriation, theft and fraud.

In principle, we always follow up on all compliance-relevant tip-offs, even those that reach us through other channels.

INVOLVEMENT IN ANTI-CORRUPTION INITIATIVES

Deutsche Telekom AG regularly joins forces with national and international organizations that deal specifically with compliance-related issues, including combating corruption. As a member of associations

and organizations such as the Compliance & Integrity forum of ZfW (Center for Business Ethics), DICO (Deutsches Institut für Compliance e.V. - German Institute for Compliance), Bitkom (Federal Association for Information Technology, Telecommunications and New Media), Deutsche Telekom makes use of the opportunity to exchange ideas and experiences related to compliance. Thanks to this collaborative approach and exchange of experiences, Deutsche Telekom AG not only makes a valuable contribution to anti-corruption within the Group, but also to initiatives in this field worldwide. Deutsche Telekom AG uses the findings to work on continually improving its compliance management system.

MAJOR ONGOING LITIGATION

Deutsche Telekom is party to several proceedings both in and out of court with government agencies, competitors and other parties. The proceedings mentioned in the 2017 Annual Report are of particular importance from Deutsche Telekom's point of view.

REPRESENTING POLITICAL INTERESTS

The political sector and regulatory authorities influence the development and availability of the network infrastructure, technologies and services. This directly impacts the competitiveness of telecommunications companies as well as business in general, which relies on having a fast network infrastructure as well as state-of-the-art telecommunications services. Networks and services are also of considerable importance for maintaining a sense of community in society, which is why we engage in active, ongoing dialog with all interested stakeholders from the spheres of politics and society.

LOBBYING TOOLS

Our partners from parliaments, governments and non-profit organizations need to uphold their independence and integrity. This principle is codified in Deutsche Telekom's Code of Conduct. Donations to political institutions, parties and political representatives are not allowed, for example. Instead, we place importance on factual communication, competence, credibility and integrity. As a result, politicians and stakeholders feel that the information we provide is authentic and credible and refer to this information when forming their own opinions. Deutsche Telekom is registered in the official transparency register for lobbyists in Brussels. Within the context of our collaboration efforts in associations and other bodies, we feel that we are under the obligation to comply with all ethical codes and legal provisions.

INVESTMENT INCENTIVE NEEDED FOR BROADBAND NETWORKS

Having a high-performance, reliable and secure broadband infrastructure is the basis of success for all business sectors and is a key factor in making a business location attractive. Deutsche Telekom has been investing extensively in infrastructure for fixed-line and mobile (fiber-optic) Internet for years, making a considerable contribution and showing more commitment than any other company to providing full-area coverage, particularly in rural areas.

In view of the ambitious broadband goals at both the national and European level, the main purpose of telecommunications and regulatory policies needs to be improving planning security and, in particular, the financial power of companies willing to invest in the market. This is the only way to fully tap private network expansion potential using all available technologies. In areas where broadband roll-out is not economically feasible, it is up to the public sector to develop far-sighted technology and provider-independent incentive programs to help effectively finance these efforts. Legal frameworks and regulatory practice need to actively support private-sector investment in new fiber-optic networks and prevent unnecessary financial burdens and red tape for the network operators investing in networks.

Regulatory intervention needs to be restricted to proven market failure to keep it from unnecessarily limiting innovation. Open access must be embraced as a basic principle so that competition and free choice for consumers are guaranteed in connection with all network expansion projects.

In view of the fact that the Internet and telecommunications market are converging rapidly and in light of the growing market power of a few global Internet players, sector-specific regulation of telecommunications is creating more and more of an imbalance. The same laws and regulations that apply to telecommunications companies also need to apply to Internet companies providing the same services. The objective here must be to create equal competitive conditions and enable fair distribution of the financial burden involved in broadband expansion.

PROTECTING THE OPEN INTERNET

As part of the EU Telecoms Package, regulations on network neutrality were adopted at the EU level and went into effect on April 30, 2016. The new regulations particularly address permitted traffic management, once again raise transparency requirements and limit commercial product and service differentiation on the Internet.

Deutsche Telekom remains committed to preserving an open Internet. Content and services will continue to be available online in accordance with the best effort principle, meaning they will be available to the extent permitted by the available resources. Deutsche Telekom will continue to expand and optimize its infrastructure so that we are able to cope with rapidly increasing amounts of data traffic and constantly upgrade our network. This is the only way for us to meet our customers' increasing demands and live up to the requirements of online content and application providers who also want to provide their services in high quality in the future. However, telecommunication networks cannot be operated without an effective network management system.

Building on the best effort Internet, Deutsche Telekom is developing an innovative network architecture – so-called 5G networks – which can better and more flexibly meet the various transmission quality requirements of the various services. We thereby fulfill business and regulatory requirements and enable innovation in the services we offer on our networks. Content will in no way be controlled, however. Deutsche Telekom supports Internet freedom and does not influence user or provider content in any way. Deutsche Telekom will continue to take a non-discriminatory approach to marketing services with different quality-of-service levels in competition with other network operators. This gives consumers greater choice and guarantees a high quality level.

CONSUMER DIALOG

Deutsche Telekom aims to become the leading European telco. That is why we again gave high priority to consumer-related topics in 2017.

Main topics included the following:

- Maintaining consumer data privacy, such as in the online advertising business,
- Improving comprehensive, cross-technology protection of young people at national and EU levels (in particular by advancing a comprehensive, Group-wide minimum standard within the EU and ongoing dialog with organizations involved in the protection of minors both nationally and at EU level),
- Improving customer service standards,
- Improving consumer protection in telecommunications (e.g., during ongoing IP migration and when switching providers for fixed-line and mobile connections), and
- Our efforts to provide better transparency for our customers (e.g. the data protection one-pager).

Within the scope of ongoing IP migration in the fixed-line network, Deutsche Telekom has switched most of its customers to IP, especially in the last three years, and has undertaken numerous user-friendly measures to make the migration as easy and seamless as possible for customers. Deutsche Telekom is also continuing its commitment in issues of provider switching, with the goal being to make it easier for both fixed-network and mobile consumers to switch providers without any service interruptions. In all these areas, Deutsche Telekom stands for a constructive and solution-oriented approach that is geared to both the consumers' interests and the interests of our company.

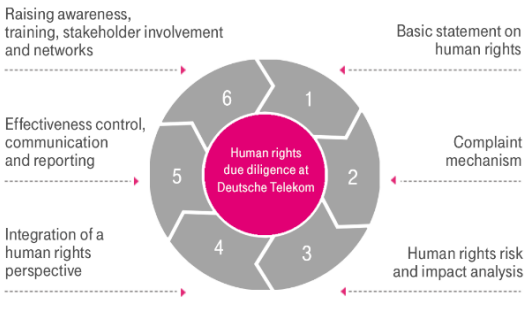
HUMAN RIGHTS

As an international player, the Deutsche Telekom Group assigns high priority to human rights compliance, especially since the ICT sector is frequently criticized for deficiencies in its supply chain. That is why we have established comprehensive social standards at Deutsche Telekom and implement these using appropriate methods. We attach particular importance to granting the right to collective bargaining and supporting diversity and equal opportunities. We expressly require our suppliers to assume responsibility as a way of making sure human rights are also protected outside of our Group.

GOALS	MEASURES	MEASURING SUCCESS
› Ensure protection of human rights within the Group › Implement the obligation to protect human rights in the value chain	› Human rights due diligence program	› Contact point for human rights › Human Rights & Social Performance Report › Effectiveness analyses

HOW WE PROTECT HUMAN RIGHTS

Deutsche Telekom has made an express commitment to the UN Guiding Principles on Business and Human Rights published by the United Nations Human Rights Council in 2011. These principles require businesses to systematically identify the impact their operations have on human rights, and to prevent, mitigate or compensate these where necessary. In order to meet these requirements, we have developed an extensive program to implement the UN Guiding Principles and introduced an ongoing process comprised of several interconnected measures and tools (see diagram).



The obligation to respect human rights is anchored in Deutsche Telekom's basic policies, the Guiding Principles and the Code of Human Rights & Social Principles (formerly Social Charter). The Deutsche Telekom Employee Relations Policy and Diversity Policy are also important in this context.

Tools for assessing potential impact on human rights

We use two tools to assess compliance with our Code of Human Rights & Social Principles: first, each year we prepare a central Human Rights and Social Performance Report, in which 103 fully consolidated companies of Deutsche Telekom participate. This report did not record any violations of our guidelines and principles during the period from January to December 2017. We have also been offering a central contact point for human rights issues since 2013. This contact point can be reached via various channels, for example the public e-mail address humanrights@telekom.de. People can also use our anonymous whistleblower system, which allows them to submit their information anonymously. All contact options are listed on our Tell me! whistleblower portal, the purpose of which is to resolve violations of legal regulations and internal policies. We look into all tip-offs and reports received and introduce countermeasures as soon as the information is identified as plausible. You can find out how we handled the reports we received in 2017 here. We also continued the process launched in 2013 to integrate human rights issues into the due diligence activities conducted in the context of mergers and acquisitions.

Based on need, we also introduce special evaluation processes to assess employer-employee relations in the national companies with which we implement our Employee Relations Policy. In this context, we also take into account the results provided by our Human Rights & Employee Relations Cockpit. This is a tool to measure progress at our national companies on the basis of five indicators pertaining to human rights:

1. Employee satisfaction (source: semi-annual pulse survey)
2. Willingness to recommend Deutsche Telekom as an employer (source: semi-annual pulse survey)
3. Health rate (source: HSE img cockpit)
4. Number of employees giving notice (source: HSE cockpit)
5. Human rights risks at national companies (according to Maplecroft Human Rights Risk Index)

Our national companies are classified according to a traffic-light system for their results in each indicator: green (requirements met), yellow (requirements partially met) and red (requirements not met). The results are then discussed with the regional managers at the national companies and measures like human rights impact assessments and employee relations policy reviews are arranged as necessary.

Human rights in the supply chain

We expressly require our suppliers to assume responsibility as a way of making sure human rights are also protected outside of our Group. To this end, we supplemented our sustainable procurement strategy with

supplier management to improve our sustainability performance in our supply chain and ensure respect for human rights. The detailed results of our Group-wide auditing program are available here.

SOCIAL CHARTER BECOMES CODE OF HUMAN RIGHTS & SOCIAL PRINCIPLES

In 2017 we revised our Social Charter and renamed it Code of Human Rights & Social Principles, which was adopted by the Board of Management in November 2017. This update underscores our commitment to protecting human rights and to the goals of the German National Action Plan on Business and Human Rights adopted by the Federal Government in 2016. There were only some minor content changes. Among other things, a statement was incorporated summoning all employees to respect and promote human rights and social principles. We also changed some of the wording. The human rights principles are now mentioned more explicitly, and our existing processes and strategies explained in more detail. The reason for the revision was primarily the increased expectations of governments, NGOs and other stakeholders.

Additionally, the Code of Human Rights & Social Principles is our commitment to complying with the guidelines and the Declaration of Principles concerning Multinational Enterprises and Social Policy issued by the International Labour Organization (ILO), the Organisation for Economic Co-operation and Development (OECD), the Universal Declaration of Human Rights as well as with the UN Guidelines for Business and Human Rights and the UN Global Compact.

REPORTS AND INQUIRIES TO THE CONTACT POINT FOR HUMAN RIGHTS

We established a contact point for human rights at Deutsche Telekom in 2013. Between January 1 and December 31, 2017, the contact point received seven reports related to human rights, submitted either directly to the contact point or through the (anonymous) whistleblower portal. Not all of these tip-offs were deemed plausible. Most of the inquiries and reports related to the topic of "compliance and verification of human rights at Deutsche Telekom". A few reports related to the topic of ongoing professional education. We also received several fundraising and support questions, which we forwarded to the appropriate colleagues. Of course, all reports were treated as confidential.

RISK AND OPPORTUNITY MANAGEMENT

For us, comprehensive risk and opportunity management also means considering the opportunities and risks arising from ecological or social aspects or from the management of our company. To this end, we actively and systematically involve all relevant stakeholders in the process of identifying current and potential risks and opportunities. We also participate in a number of working groups and committees. In parallel with our ongoing monitoring of ecological, social and governance issues, we systematically determine our stakeholders' positions on these issues. The key tools we use here are: our year-round open online materiality survey for all stakeholders; our bi-monthly NGO report, which systematically analyzes press publications of the NGOs relevant for us; our involvement in working groups and committees, countless national and international business associations, and social organizations, e.g., GeSI img, BID, Bitkom, Econsense, and BAGSO; stakeholder dialog formats organized by us, such as this year's ICT and Climate Stakeholder Day under the motto "The impact of ICT on climate change – curse or blessing"; and our various publications, such as the press reviews and newsletters.

We have identified the following as our main sustainability management issues:

REPUTATION

How we deal with sustainability issues also entails both opportunities and risks for our reputation. A high level of service quality is one of the most important factors for improving customer perception. Customer satisfaction has been embedded in our Group management as a non-financial performance indicator to underline the importance of this issue. Transparency and reporting help to promote the trust of other external stakeholders in our Group. Our annual and CR reports also serve this purpose. However, issues such as business practices, data privacy and work standards in the supply chain and conduct in relation to human rights also entail reputation risks. If our brands, products or services are connected with such issues in negative media reports, this can cause substantial damage to our reputation. As part of our sustainability management activities, we continuously review such potential risks and take measures to minimize them. We also ascertain how our products and services make a positive contribution to sustainability in order to enhance our reputation.

CLIMATE PROTECTION

We pursue an integrated climate strategy, which means focusing not only on the risks that climate change poses for us and our stakeholders, but also on the opportunities it presents. By 2030, ICT products and services will have the potential to save up to ten times as much in CO_2 emissions in other industries as the ICT sector itself generates (according to the GeSI SMARTer2030 study). This creates an opportunity to save 20 percent of global CO_2 emissions in 2030 and to keep worldwide emissions at 2015 levels with simultaneous economic growth. The additional revenue potential here amounts to 6.5 trillion US dollars, 2.0 trillion US dollars of which is for the ICT industry alone. Further, ICT solutions can save a total of 4.9 trillion US dollars in costs. To give a specific example: The broadband rollout in Germany has the potential to save an aggregate amount of 19 million metric tons of CO_2 between 2012 and 2020. What's more, the economic momentum triggered by rolling out broadband can create an aggregate number of 162,000 new jobs and increase GDP by 47 billion euros between 2015 and 2020. We are supporting this trend by evaluating our product portfolio to identify sustainability benefits. In addition, we want to continuously improve the ratio of the emissions that our products and services save to those generated by our own value chain. In 2016, for example, we saved 33 percent more emissions in Germany than we produced.

Among the risks that climate change harbors, meteorological extremes are one we are already experiencing. This is having a direct effect on our stakeholders, e.g., our customers, suppliers, and employees. We can take preventive action in this area by reducing our own CO_2 emissions, which is one of the reasons we set ourselves the goal of achieving a 20 percent reduction in our Group-wide emissions – leaving aside our United States operating segment – by 2020 (baseline: 2008). Climate protection also carries financial risks, whether from the introduction of a levy on CO_2 emissions or an increase in energy costs. The measures we are taking to counter these risks include measuring our own energy efficiency and finding ways to improve it. Further, in 2016 four of our subsidiaries (Magyar Telekom in Hungary, OTE in Greece, T-Mobile Netherlands, and Hrvatski Telekom in Croatia) covered 100 percent of their electricity requirements with renewable energy, while a further two (T-Mobile Austria and T-Systems Netherlands) almost met this target, thus reducing climate risks.

SUPPLIERS

We see more sustainability in our supply chain as an opportunity – for our reputation and our business success. Apart from the general risks associated with our global procurement activities, we can be exposed to country- and supplier-specific risks. These include, for example, the use of child labor, the conscious acceptance of environmental damage or inadequate local working and safety conditions. We reduce these risks by systematically reviewing our suppliers. Our partnerships with suppliers that comply with international sustainability standards ensure a high level of product quality and reliable procurement. We have a special development program in place to help strategic suppliers introduce business practices that are both socially and ecologically acceptable while remaining economically efficient. This program again showed measurable successes in the reporting period and has three major advantages: It has a positive impact on our suppliers' working conditions, enhances their profitability, and makes the economic relevance of sustainability clear for both sides, i.e., for our suppliers and for the Group alike. For instance, better working conditions at our suppliers

reduces the number of work-related accidents as well as the staff churn rate. That, in turn, ensures high product quality and increases productivity, while at the same time lowering costs for recruitment and training. Thus, not only are we strengthening our suppliers' profitability and CR performance, we are also significantly reducing identified risks.

HEALTH AND THE ENVIRONMENT

Mobile communications, or the electromagnetic fields used in mobile communications, regularly give rise to concerns among the general population about potential health risks. This issue continues to be the subject of public, political, and scientific debate. Acceptance problems among the general public concern both mobile communications networks and the use of mobile devices such as smartphones, tablets and laptops. The discussion also has repercussions for the build-out of mobile communications infrastructure and the use of mobile devices. In the fixed network, it affects sales of traditional IP and DECT (digital cordless) phones and devices that use Wi-Fi technology. There is a risk of regulatory interventions, such as reduced thresholds for electromagnetic fields or the implementation of precautionary measures in mobile communications, e.g., amendments to building law or labeling requirements for handsets.

Over the past few years, recognized expert organizations such as the World Health Organization (WHO) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP) have repeatedly reviewed the current thresholds for mobile communications and confirmed that – if these values are complied with – the use of mobile technology is safe based on current scientific knowledge. The expert organizations, currently the ICNIRP, regularly review the recommended thresholds on the basis of the latest scientific findings.

We are convinced that mobile communications technology is safe if specific threshold values are complied with. We are supported in this conviction by the assessment of the recognized bodies. Our responsible approach to this issue is manifested in our Group-wide EMF Policy, with which we commit ourselves to more transparency, information, participation and financial support of independent mobile communications research, far beyond that which is stipulated by legal requirements. We aim to overcome uncertainty among the general public by pursuing an objective, scientifically well-founded and transparent information policy. We thus continue to see it as our duty to maintain our close and successful dialog with local authorities, over and above the statutory requirements. This also applies since our longstanding collaboration with municipalities to expand the mobile network was enshrined in law in 2013; previously, this collaboration was based on voluntary self-commitments by the network operators.

DATA PRIVACY AND DATA SECURITY

Almost half of the German population (48 percent) has been victim to Internet crime - for example through viruses, Trojans or computer worms. These were the findings of a survey conducted by TNS Emnid on behalf of Deutsche Telekom in February 2016. Few users – whether they are using the Internet for private or professional purposes – are aware that every click leaves behind data traces online that can potentially be traced. Hackers can take advantage of this to collect specific data and identify vulnerabilities in hardware and software. Our customers' trust is the basis for our business as an ICT company, which is why data privacy and data security are of utmost importance to us.

GOALS	MEASURES	MEASURING SUCCESS
› Guarantee effective data privacy and create trust	› Board department and Group unit for Data Privacy › The Telekom Security business unit" › Independent Data Privacy Advisory Board › Privacy and security by design through our Privacy and Security Assessment procedur › Transparent communication and annual reporting › Employee training courses	› Annual Group data privacy audit to measure the standard of data privacy within the Group › Risk-based annual audit program and ad-hoc controls › Certification

ENSURING EFFECTIVE DATA PRIVACY

The highest standards of data privacy and data security are core characteristics of our brand identity. In 2008 we created a Board of Management department for Data Privacy, Legal Affairs and Compliance as well as the Group Privacy unit. This has given us the necessary capacities for effective data protection. The responsible Board member is advised by the independent Data Privacy Advisory Board, which comprises renowned experts from politics, science, business and independent organizations. The Board was founded in February 2009.

At the beginning of 2017 the new Telekom Security business unit commenced operations. The new unit combines the security activities from various Group areas, thereby reinforcing our portfolio of cyber security solutions.

We are also committed to improving the political framework conditions to ensure comprehensive data privacy. At the 2015 national IT summit we signed the "Charter for the Promotion of Trustworthy Communications" together with the German Federal Minister of the Interior and other organizations. Its main purpose is to make sure that the encryption of private communication becomes standard.

Consistent transparency toward the public

In 2008 we were the first DAX-30 company to publish an annual data privacy report. In 2016, we decided to stop publishing this report and instead provide the relevant information on the Internet at www.telekom.com/en/corporate-responsibility/data-protection-data-security/data-protection, where we now provide up-to-date and important information about developments related to data protection and secure handling of personal data.

Since 2014, we have also been publishing an annual transparency report. In the report we disclose our obligations to cooperate with German and international security agencies.

The section on protecting consumers and minors elaborates on how we ensure the safety of our products and services.

Regular employee training courses

Telecommunications companies are obliged to provide new employees with information on data privacy regulations. We go above and beyond these legal requirements. Every two years, we train all of our employees in Germany and commit them to data privacy and telecommunications secrecy. Corresponding requirements for our national companies are in place. We have also introduced specific training in the customer and human resources departments, where the risk of data abuse is higher. This training includes online courses for independent learning, presentations on data privacy and face-to-face courses on specific topics such as data protection at call centers. This helps us make sure that all employees have in-depth understanding of the relevant data privacy policies.

Annual review of measures through audits and certifications

We conduct an annual Group data privacy audit to measure and improve the general data privacy standards throughout the Group. 30 percent of the Group employees, who are randomly selected, are asked to participate in an online survey. The Group data privacy audit is supplemented by self-assessments completed by the data privacy officers at the national companies on implementation of the requirements defined in our "Binding Corporate Rules on Privacy."

Based on the results, the Group Privacy department identifies need for action at the respective departments and requires them to implement improvement measures. To this end, the Global Data Privacy Officer holds personal meetings with the responsible directors, managers and data privacy officers at the different departments. The Group Privacy department supports implementation of the improvement measures by providing information and advice and conducts a follow-up evaluation. Unusual audit results are taken into consideration when planning the follow-up audit.

We also have our processes and management systems as well as products and services certified by external, independent organizations such as TÜV, DEKRA and auditing firms. The technical services company TÜV Nord confirmed once again this year that Deutsche Telekom's IT systems are secure.

IMPLEMENTATION OF THE EU GENERAL DATA PROTECTION REGULATION

The EU General Data Protection Regulation took effect in May 2016. After a two-year transition period, the regulation will be binding as of May 25, 2018. Since laws always require interpretation as to how they should be implemented in day-to-day life, the Group Privacy department has now prepared uniform rules for the entire Group: the Binding Interpretations. They were compiled in collaboration with data privacy experts in the national companies. The Binding Interpretations include specific recommendations and best practice examples to implement the EU regulation. For example, they explain what a customer consent must entail, or how customer data has to be deleted, if this is requested by the customer. Over the next few years, we will be collecting further practical experience and further developing these interpretations. Our data privacy training will also be adapted to include the new content.

PUBLICATION OF INTERNATIONAL TRANSPARENCY REPORT

Telecommunications companies are legally obligated to cooperate with security agencies. This includes surveillance measures to record telecommunications connections or disclosure of customer information. Deutsche Telekom has been publishing an annual transparency report for Germany since 2014, which covers the types and amount of information we disclose to security agencies. The transparency report was expanded to include all the national companies in 2016. The international transparency report was last published in February 2017.

International legal framework conditions differ considerably. In some countries it is illegal to disclose security measures, while in others surveillance is directly conducted by the authorities without the involvement of telecommunications companies. You can find more information on the local situations in the various country reports at www.telekom.com/transparency-report.

We consider it the responsibility of the authorities to ensure transparency regarding security measures and called for improved online security in the context of a ten-point program in January 2015. Until our requests are met, we strive to provide the necessary transparency within the legal possibilities.

CUSTOMERS & PRODUCTS

We are building the network for the gigabit society. Digitalization means making our lives more efficient, comfortable and sustainable. Our aim is to offer these advantages to as many people as possible, while keeping them safe from the potential dangers of the Internet.

SERVICE QUALITY

As a service-oriented, responsible company, we feel obliged to respond to our customers' needs and expectations. That's why we have set up a comprehensive customer relationship management system. We encourage dialog with our customers by giving them opportunities to quickly and easily contact us at any time via the communication channel of their choice: e.g., online, via app, phone or e-mail or at a Telekom shop.

GOALS	MEASURES	MEASURING SUCCESS
› Comprehensive service for our customers and a high degree of customer satisfaction › Expansion and improvement of digital service offering	› New service orientation: more reliable, direct and personal › Technical service and customer service from one source › More transparency and flexibility through additional digital service options	› TRI*M method › Telekom Digital Share

ENSURING EXCELLENT SERVICE QUALITY

We want to offer a reliable, high-quality service that satisfies all of our customers. In order to achieve this goal, we reoriented our customer service in 2017 and combined our customer service and technical service. This will enable optimal coordination and alignment of our service processes from beginning to end - from the initial contact with the hotline to problem resolution.

Our landline and mobile communications customers have been able to reach us around the clock in Germany since 2013 using our service numbers, including for Internet and TV questions. Our online channels are becoming more and more important. More than 40 percent of all service inquiries at Telekom Deutschland are solved by support provided by our overarching online platforms (as of the end of 2017). In order to improve convenience for our customers when they have service questions, we expanded our digital offering with new functions in 2017. For example, you can now arrange the relocation of a line using an app or track the arrival of a Deutsche Telekom technician.

Measuring customer loyalty and willingness to recommendour products and services to others

We use the TRI*M index to precisely gauge customer loyalty and regularly participate in benchmarkings. The basis for the census is a customer survey in all markets where we are active. The benefit for the Deutsche Telekom Group consists in data aggregation across all country values, excluding the USA. The index itself is calculated from four individual issues (competitive edge, performance, continued use and recommendation). In the 2017 reporting year the Group-wide TRI*M was 68.6points compared to the previous year's value of 70.2. The TRI*M index for Germany was 59 points, compared to the previous year's 60 points. That means we didn't attain our goal of a slight increase. One of the reasons for this is that our service provision for business customers was deemed to be capable of improvement. Our goal for 2018 is to increase this number by at least one point. The TRI*M index for consumers in Germany was 57 points in 2017 compared to 59 points the previous year. This result was three points below expectations. We were able to again improve our customers' willingness to recommend us in 2017 compared to the previous year, adding another 0.04 points for a score of 7.40 points.

The results for our customers' satisfaction and loyalty are in part tied to our managers' variable salary components and thus play a role in their performance assessments.

NEW SERVICE ORIENTATION: DOING EVEN MORE TO MEET OUR CUSTOMERS' NEEDS

We took another important step in 2017 with our service reorientation in order to create a service that is oriented to our customers from A to Z. To this end, we merged our customer service and technical service. Some 36,000 Telekom employees are now part of our service unit.

Our focus is on the needs of our customers. We are simplifying our processes and offer contact options, contact persons and solutions from one source. This is significantly aided by personal advisers who provide advice on relocations and changes of provider as well as by the personal callback service. For example, the personal callback service allows customers to speak with the same customer adviser within five days of the initial contact. Deutsche Telekom's voice portal logs the customer's request for a callback and forwards it to the corresponding customer adviser. The callback will then be initiated within one hour, and frequently sooner.

Our service reorientation is already showing initial success. Since 2017 we've had about 20 percent more technicians available for customers. We also systematically evaluate our customers' inquiries and complaints to identify the root of the problem and make improvements.

Additional improvement measures planned for 2018

Our goal is to achieve a zero cancellation rate for appointments with our technicians. In cases where an appointment needs to be unexpectedly canceled nonetheless, the customer will be promptly informed of this and a new appointment will be scheduled. We will also be gradually shortening the appointment time frame. This will prevent customers from having to keep entire days free for the technician's appointment.

In order to improve quality and increase efficiency even more, we want to prevent empty trips in the field and continue to increase instances where issues are resolved during initial contact. We want to wow our customers with our service – and not only during the problem resolution process but a lot earlier, if possible.

OUR INNOVATIONS FOR BETTER SERVICE

We want to improve our service continuously and on all channels: personal, by telephone, online and via app. In addition to improving existing contact channels, we are also working on innovative new service offers.

- In order to improve our "classic" phone service, we have been offering an alternative to the hotline waiting queue since March 2017, at the request of our customers. Callers can request a callback if the wait times are very long.
- Many online services can also be used via the MagentaSERVICE app. It combines our entire service offering for mobile communications and landline customers, allowing our customers to do things such as check their data usage or manage their contracts, for example. In 2017 we expanded the app with a range of functions. A line relocation can now be arranged without having to personally contact customer service, for example. What's more, customers who want to make an appointment can use the app to find the nearest Telekom Shop.
- Our digital incident assistant – an automated text chat that can engage in text-based dialog with customers – was refined in 2017 to become a digital service assistant. It is now able to automatically answer questions about cables, installation and incidents with regard to telephony, Internet and TV. In addition to providing information about technical topics, the digital service assistant can now also tackle questions about e-mail, WLAN and smartphones. At IFA 2017, we presented, by way of live text chat, the newly added possibility of being forwarded to a customer adviser if the chatbot is unable to definitively resolve the issue.
- At the end of 2017 we launched the Arrival Control service, whereby the customer receives a link to a website via text message where he/she can track a technician's process steps until their appointment with said technician. For example, the customer can see whether the technician is still with the prior customer and when he/she is scheduled to arrive.

AWARDS FOR OUR SERVICE

TÜV Rheinland: a "good" rating for Deutsche Telekom's service

For the fifth time in a row, the TÜV-Rheinland awarded Deutsche Telekom's customer service, technical service and Telekom Shop sales organization the coveted "tested customer satisfaction" quality seal based on a representative survey. Some 2,670 customers in Germany were polled for the study in a representative random sampling. The three service organizations earned high marks in the areas of reliability, competence and friendliness, in particular.

Focus Money's DEUTSCHLANDTEST 2017: Online Service

The market research institute Statista conducted the BEST Online Service study on behalf of DEUTSCHLANDTEST. The goal of the survey was to find out which companies earned the highest marks from customers with regard to the quality of digital customer dialog. Deutsche Telekom was awarded BEST Online Service both within the telecommunications sector as well as across sectors. Deutsche Telekom also nabbed BEST Online Service in the Scope of Offer and Service Quality category.

DEUTSCHLANDTEST 2017: Best Service App

DEUTSCHLANDTEST decided to find out what the "Best Service App" is. To this end, 46 apps from five sectors were evaluated by 2,000 surveyed users.Deutsche Telekom's MagentaSERVICE APP was the winner in the telecommunications sector and earned second place in the overall ranking. Deutsche Telekom also won the Functional Scope category.

DEUTSCHLANDTEST 2017: Service King

For the third time in a row, DEUTSCHLANDTEST surveyed customers' service experiences in 34 branches nationwide. Deutsche Telekom was the winner in the Telecommunications category for the second time in a row, with customers thereby confirming that Deutsche Telekom offers excellent service. Customers in the 40 largest German cities were surveyed for the test. A total of over 300,000 votes were recorded and evaluated.

CHIP hotline test 2018 for fixed-line and mobile telecommunications

In collaboration with Statista, one of the largest market research companies, CHIP completed a major hotline test in 2017. Over an eight-week time frame (end of June – start of September 2017), the new customers hotlines of a total of 141 companies from 12 branches were tested. More than 8,600 tests were carried out and subsequently summarized in rankings. The testing focused particularly on the topics of customer service, availability, wait time and transparency. Deutsche Telekom was rated as "very good" overall for its mobile new customers hotline and was the test winner in the Customer Service category. The fixed-network new customers hotline was also rated as "very good" in the overall assessment.

Distinction with the International Business Excellence Award 2017
In 2017 Deutsche Telekom once again received the International Business Excellence Award in the Customer Experience & Voice of the Customer category. It also won the Telecommunications and Information category this year for the Voice of the Customer program, our international customer contact analysis. The program collects customer feedback across all channels of contact. More than five million feedback responses are collected this way every year, which are used to optimize customer service. The system is already in use in twelve European countries.

One Silver and two Bronze Loyalty-360 Customer Loyalty Awards
Deutsche Telekom was honored for its Voice of the Customer program at the 2017 Loyalty-360 Awards. We received a Bronze Award for the Customer Experience & Engagement and the Measurement categories. Deutsche Telekom also won a Silver Award in the 360-Degree Award category. The program provides international customer contact analysis used to collect customer feedback across all channels of contact. More than five million feedback responses are collected this way every year, which are used to optimize customer service. The system is already in use in twelve European countries.

INFRASTRUCTURE EXPANSION

Our network infrastructure enables economic performance and participation in the knowledge and information society. As a result, demand for faster, full-coverage data services is immense. That is why we continue to rapidly expand our infrastructure and improve transmission speeds with new, secure technology.

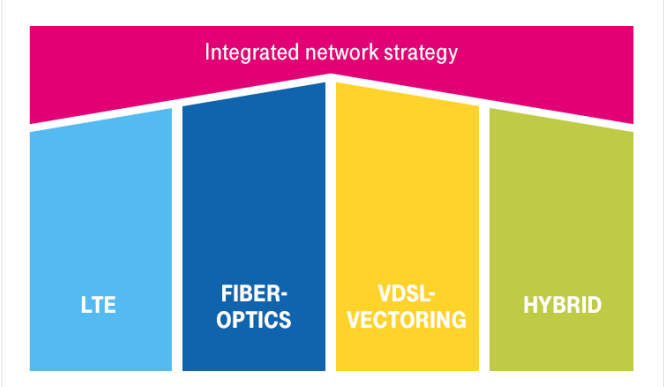
GOALS	MEASURES	MEASURING SUCCESS
› 95 percent LTE coverage by 2018 › 80 percent VDSL vectoring coverage by 2018/19	› Integrated network strategy › Migration to IP	› Network coverage status

EXPANDING OUR INFRASTRUCTURE

The data volume generated globally will increase tenfold by 2020 compared to 2013, according to a study conducted by US-based IT company EMC. That would mean 44 billion gigabytes in the networks a year instead of 4.4 billion. The amount of digital data being produced in Germany alone is expected to grow from a current 230 billion gigabytes to 1,100 billion. Networks need to be continually expanded to be able to handle this volume.

We have been the largest investor in this area in Germany for years now and will continue to drive network expansion. The main objectives of our pan-European integrated network strategy (INS) form the basis for these activities: growth, efficiency and quality. We will continue to expand our networks, increase the efficiency of our systems and further strengthen our role as a leader in network quality. Our integrated network strategy is in line with the network expansion goals specified by the EU Commission and the German federal government (digital agenda and broadband strategy).

Deutsche Telekom's integrated network strategy (INS) for Europe is based on the four pillars of LTE, fiber optics, VDSL vectoring and hybrid. In addition to expanding the LTE mobile network, fiber-optic expansion in combination with VDSL vectoring technology is the short and medium-term focus of Deutsche Telekom's INS for Germany.



We have defined two targets in implementing our INS in Germany that we plan to have achieved by 2018. One, we expect to be able to provide 95 percent of the population with LTE. Secondly, progress of the fiber-optic network roll-out should allow VDSL vectoring lines with bandwidths of at least 50 Mbit/s for around 80 percent of all households in 2018/9. This is subject to regulatory changes.

Upgrading our network architecture

We intend to make our networks faster and more efficient. To do this, we are going to deactivate all analog PSTN (public switched telephone network) platforms that we no longer need and switch our entire telephone network to IP-based lines.

We will also rely on fiber optics when updating our network architecture in order to meet our customers' demands for fast network connections. Using the fiber optic-based VDSL vectoring technology speeds up download data transmission rates to up to 100 Mbit/s and even up to 40 Mbit/s when it comes to upload transmission rates. But vectoring requires more energy. In order to lower this consumption, we are working on control solutions for the energy-saving operation of our facilities. The combination of IP technology and VDSL vectoring is already considerably more energy-efficient than conventional PSTN technology.

Irrespective of the expansion and renewal of our infrastructure, we aim to operate our networks in the most stable and failure-free manner possible.

NEW COMMUNICATIONS STANDARD: NETWORK REVOLUTION INSTEAD OF EVOLUTION

The current LTE communications standard is a fourth generation standard (4G). LTE is continually developing and can fully meet the requirements of consumers for ever greater bandwidth. We assume that the 4G LTE technology will most likely also become a foundation for a future 5G standard. 5G is currently being discussed and developed in the industry. This will allow us to meet the growing requirements of consumers in the future as well.

However, 5G will be able to do much more - the new functions will be interesting first and foremost for industry. That's because 5G will enable new business models which are still inconceivable according to current standards. This includes innovative solutions for the healthcare sector and automotive industry. All in all, 5G will provide 1,000 times higher capacity depending on the application, 10 times better speed and 10 times faster response time (latency) in comparison with conventional technologies.

Advances on the road to 5G

- We made further progress with respect to response time in the 5G network in 2017. After we cracked the record latency of one millisecond in 2016, we are now also able to guarantee stable low response times in the 5G network. Industrial applications that rely on a high degree of precision in particular need this reliability. At the Mobile World Congress in Barcelona in February 2017, we demonstrated this using an industrial robot whose response times were always exactly eight milliseconds.

- We were able to prove the industrial sustainability of 5G and the advantages for the energy sector in another practical test in the spring of 2017. In cooperation with the Berlin-based electricity supplier Stromnetz Berlin and telecommunications company Ericsson, we investigated use cases in the electricity grid within the scope of the 5Grid project. The results showed that highly flexible communications networks will soon be available with 5G, which can adapt to the most varied of requirements. Such electricity grids are needed for the shift towards wind and solar energy. 5G can thus become a key driving force behind the energy revolution in Europe.

- Together with Ericsson and South Korean telecommunications company SK Telecom, we developed the first intercontinental 5G trial network in the world and presented it in the spring of 2017. To this end, we set up what is called network slices (virtual networks) for Deutsche Telekom and SK Telecom in the regions where the two network operators operate. Network slicing enables an operator to offer a network service internationally. Customers would then not need to conclude individual contracts with operators in various countries. Both companies demonstrated this in a test run, during which they set up network slices for, among other things, augmented reality (AR) which allows an augmented perception of reality – for example through smartphones.

- In September we used the new mobile communications standard 5G New Radio (NR), the future mobile communications component of 5G, for the first time throughout Europe. In Berlin-Schöneberg our network transmitted data over a 5G connection with more than two gigabits per second and a latency of three milliseconds during a field test. This represents an important development step on the road to the worldwide introduction of 5G.

CONTINUING EXPANSION OF THE FIBER-OPTIC NETWORK

Telekom already operates the largest fiber-optic network in Europe with a length of 455,000 kilometers. However, demand for higher bandwidths is constantly increasing. In view of this trend, we continue to expand our fiber-optic network in order to secure our business success in the long term. Our goal is to provide 80 percent of Germany's population with a minimum of 50 Mbit/s by 2018/2019 – subject to regulatory changes.

To reach this goal, we are using FTTC (fiber to the curb) technology and are expanding FTTH (fiber to the home) as well. In the scope of the FTTC expansion, fiber optics are laid to the gray street cabinets on the curb. From there we can supply our customers with large bandwidths via existing lines by means of VDSL vectoring. With FTTH, the fiber-optic cables are really taken into the customer's home.

	DSL 16.000	FTTC with VDSL vectoring	FTTC
Download	up to 16 Mbit/s	up to 100 Mbit/s	up to 200 Mbit/s
Upload	up to 2.4 Mbit/s	up to 40 Mbit/s	up to 100 Mbit/s

Vectoring compensates for electromagnetic interference that arises between the copper lines on the way to the customer's home. The technology allows for faster data transmission with speeds of up to 100 Mbit/s. The technology for this is installed in cable distribution boxes.

In October 2017, we switched the first two of 7,600 nearshore areas in Germany to fast vectoring: Moitin near Rostock and Bad Grund in the Harz region. Nearshore areas are households that are supplied over street cabinets at a distance of at most 550 meters from the main distribution frame (the central service installation for households and companies in the area). The German Federal Network Agency decided in 2016 to approve vectoring expansion in the vicinity of Deutsche Telekom's main distribution frames (nearshore vectoring).

CONTINUING EXPANSION OF THE LTE MOBILE NETWORK

We continued to expand our use of LTE mobile network technology in the Deutsche Telekom network throughout Europe in 2017. In late 2017, average network coverage was at 94 percent of the population, putting our European national companies in line with their target coverage. Network coverage at the end of 2017 was around 93 percent of the German population. Our goal is to achieve 95 percent by the end of 2018. Around 75 percent of European transmitter masts are currently equipped with LTE. Two or more frequency bands are active in almost every fourth LTE location, ensuring more extensive reach and higher speeds.

FASTER INTERNET ACCESS ON BOARD

Together with satellite operator Inmarsat, we are planning to provide airline passengers in Europe with even better Internet access on airline flights. We are currently establishing the European Aviation Network (EAN) within the scope of a strategic partnership with additional partners. EAN is the first integrated solution worldwide that consists of a satellite and a complementary LTE-based ground network. Other partners are telecommunications company Nokia and aerospace specialist Thales.

Deutsche Telekom and Nokia completed the project's ground network at the start of 2018. To this end, 300 antenna locations were installed and the network was connected live. At the same time, Inmarsat and Thales advanced the satellite communication for the EAN. The satellite was launched in the summer of 2017 and has completed its tests in orbit in the meantime. Now it's ready to support on-board Internet services.

The EAN service has been functional since the end of 2017 after completing successful flight tests. Our first customer, airline group IAG, has already equipped multiple airplanes with EAN hardware and launched an internal pilot project. The EAN service is slated to be commercially available for passengers starting in the summer of 2018. The European-wide introduction of EAN for the entire IAG fleet will take place in 2019.

PAN-EUROPEAN NETWORK (PAN-NET) IS TAKING SHAP

To date, our European national companies have operated their own infrastructures and developed their services independently. However, the switch to IP technology – to be largely completed by 2018 - will make it possible to develop new services together and share them across borders. We hope to tap into this potential by creating a pan-European network.

Individual services such as text messages, voicemails and e-mails will be made available to all countries in the pan-European network as "product building blocks." Our Pan-Net cloud will serve as the basis for this. Every national company can then use the building blocks to create an offer that suits their local market and customer requirements. We can also use this technology to offer new solutions throughout Europe within just a few days.

The Pan-Net cloud is an association of data centers distributed throughout Europe. After we started up operations in the first of these data centers in Hungary in 2016, another center followed in Poland in 2017. Greece should be added to this list at the end of 2018. We founded a new company for management and control of the new infrastructure in 2015: Deutsche Telekom Pan-Net, headquartered in Slovakia.

SWITCH TO IP TECHNOLOGY ADVANCES

Thanks to IP technology, phone calls are no longer transmitted via analog channels or using ISDN technology but in the form of data packets over the secure Deutsche Telekom network, a method that has been the standard in online and mobile communications services for some time now. The switch to IP-based lines is the basis for faster Internet connections. At the same time, energy use with IP technology is considerably lower than with the network technology previously used. The switch therefore also helps us decrease our CO_2 emissions

By the end of 2017 we had switched about 16.5 million lines in Germany, that is around 69 percent, to IP. We continue to convert about 70,000 connections every week. After placing our focus on consumer lines for some time, we began increasingly focusing on business customers in 2016. The IP rate for business customer lines was significantly more than 50 percent by the end of 2017. Thanks to the use of IP-based vectoring technology, 3.5 million households in almost 50 cities could surf the Internet with up to 100 MBit/s by the end of 2017.

In the other EU countries we also increased the number of IP lines. In Croatia, Montenegro, Macedonia and Slovakia, all lines have already been switched to IP. Hungary followed at the end of 2017. The plan is to complete the switch in Greece and Romania by 2018.

AWARD FOR MOBILE NETWORK IN GERMANY

TÜV NORD confirms that Deutsche Telekom offers the best mobile telecommunications network quality

Instead of a testing snapshot, as is common to most tests, we have had the quality of our network tested throughout the year for years now. Testing vehicles record measurement data for speech and data services as part of continuous testing. They record the network quality, also compared to our competitors' mobile communications networks. This is done to ensure more transparency. The result is that we rank the best in the categories of call set-up, call stability and voice quality.

The professionals at TÜV NORD CERT extensively tested the "quality comparison from the customer's perspective" process (QCCP). They confirm the neutrality of the recording and processing of test data and have issued the TÜV Service Check certificate for the "Test and Evaluation Process according to QCCP Standard" without restrictions.

Deutsche Telecom receives multiple awards as best mobile communications operator

Stiftung Warentest (edition: 06/2017)

The consumer organization Stiftung Warentest once again confirmed in 2017 that Deutsche Telekom has the best mobile communications network in Germany. Stiftung Warentest tested the networks in Germany on freeways, highways and in city centers. Our performance was the best, with an overall rating of 1.9 (good). A Telekom LTE signal could be obtained in 97 percent of the test regions in rural areas.

First place in the 2017 Connect reader survey (edition: 7/2017

We are the best mobile communications operator and the best landline provider. This was once again the conclusion of the annual choice of the readers of the trade journal Connect. Our products and services won additional important prizes:

mobile network operator (three competitors) network operator - prepaid cards (three competitors)mobile communications provider (18 competitors)landline provider (eight competitors)cloud services (seven competitors)mobile network operator, Austria (three competitors)

Car Connectivity Award (edition: auto motor und sport 22/2017; edition: CHIP 11/2017)

Readers of auto motor sport and CHIP honored us with first place in the Mobile Networks category of the Car Connectivity Award. Two-thirds of the 16,300 surveyed readers rated us the best cell phone network for cars. This marks the fourth time in a row that we impressed the magazine's technology and car enthusiasts.

Chip (edition: 1/2018)

We also won the CHIP mobile communications test. The testers criss-crossed the country by car in order to comprehensively test the network coverage and quality of the mobile communications networks of Deutsche Telekom, Vodafone and O2. We won in many categories, including Mobile Internet, Telephony, and Availability, and again clinched the overall victory with a rating of 1.4.

Connect mobile network test (edition: 1/2018)

We were also the overall winner of the Connect mobile network test 2018, with a rating of "very good". The testing examined the voice and connection quality during phone calls as well as data communication via mobile Internet. The measurements were taken in various locations, such as cities and small towns as well as in trains

SUSTAINABLE PRODUCTS & SERVICES

We can also use our products, services, and activities to participate in contributing to ecological and social challenges, as was made clear in a comparison with the 17 sustainability goals (SDGs) set forth by the United Nations. That's because information and communications technology (ICT) allows industries, service providers and consumers to be more sustainable. By way of example, according to the GeSI #SMARTer2030 study, greenhouse emissions could be reduced by 20 percent by 2030 through targeted use of ICT. Furthermore, ICT also offers great market potential: The study estimates that $6.5 trillion of additional revenues will flow from ICT-enabled services in 2030. Sustainability not only involves protecting the environment but also has further relevance when it comes to ICT. Technology can contribute to reduced resource consumption, for example. Within the scope of the "Smart City" projects, i.e. the implementation of digital technology in cities, it can help reduce traffic or improve traffic flow, and hence reduce emissions, for example through Parking Apps, or make street lighting more energy-efficient.

But ICT can do even more. It is also the precondition for sustainable economies. In our current consumer model, products are usually discarded after use. This leads to the loss of valuable resources while garbage piles grow. The idea of a circular economy, where resources return to the production process through recycling, offers a promising solution. The idea of a shared economy goes a step further than this. This is a "share instead of own" concept, which reduces the amount of consumer goods per person. What's more, repairing objects increases their life cycle. Both save valuable resources. Many shared economy concepts like car sharing or city bikes wouldn't even be possible without digital networking.

As a telecom company, we are doing our part to decrease resource consumption of ICT products. In our leasing model for routers and media receivers discarded devices are refurbished for reuse. This extends their life cycle. And with our cell phone collection program, we make sure that valuable resources are returned to the value chain. Thanks to solutions like cloud computing our customers can also do without their own servers, thereby conserving resources.

In addition, ICT helps stabilize electricity networks, simplify workflows and further improve medical care.

As a modern technology company, we want to help shape the development of products and services that contribute to sustainability. That is why we continuously expand our offer of sustainable products and innovative ICT solutions for private and business customers.

GOALS	MEASURES	MEASURING SUCCESS
› Increase the share of sustainable products and services of the overall portfolio	› Creating a sustainable product portfolio › Product certification (e.g., Blue Angel ecolabel) › Promoting innovation	› Increasing the share of sustainable products in total sales › Used cell phone collections

DEVELOPING SUSTAINABLE PRODUCTS AND SERVICES

We are committed to systematically using the sustainability potential of ICT. Our primary focus in these efforts is on machine2machine communication, smart home technology and e-health. Sustainable products are also an important pillar of our integrated climate strategy.

Managing the issue of sustainable products calls for systematic measures to be implemented throughout the supply chain. Thus, our measures already start with procurement. This is how we make sure that sustainability criteria are complied with along our supply chain. We aim to have our products certified by recognized environmental labels such as the Blue Angel and the TÜV "Certified Green Product“ label. The strict requirements of these labels help us see how we can further improve our products. They also help us inform our customers of the benefits of choosing sustainable products. At the end of a product's life cycle, we contribute to its reuse or recycling. For example, we regularly carry out used cell phone collection campaigns.

Sustainable solutions for today and tomorrow

Our services contribute to the increasing digitization of workflows and business processes, resulting in decreased consumption of resources. Some examples of this are our cloud computing offers, which eliminate our customers' need for their own servers and storage media. At the same time, we want to give as many people as possible the chance to participate in the information society and to use the opportunities it offers. We facilitate use of modern communication media for people with age-related or physical disabilities, for example. We develop products and services that meet their needs and continue to work on improving user friendliness. Throughout the Group, Deutsche Telekom also offers various subsidized rates to provide low-income customers and people with disabilities with cost-efficient phone and data rate plans.

When developing new, sustainable ICT solutions, we also cooperate with various partners and communicate with our stakeholders.

We are always thinking one step ahead in everything we do. We aim to develop new solutions primarily through innovation cooperations. In addition, we invest in extensive research, for example in the field of machine2machine communication. We invested a total of 57.7 million euros in research and development throughout the Group in 2017. We also finance professorships, collaborate with universities and encourage innovative business concepts with our start-up incubator, hub:raum.

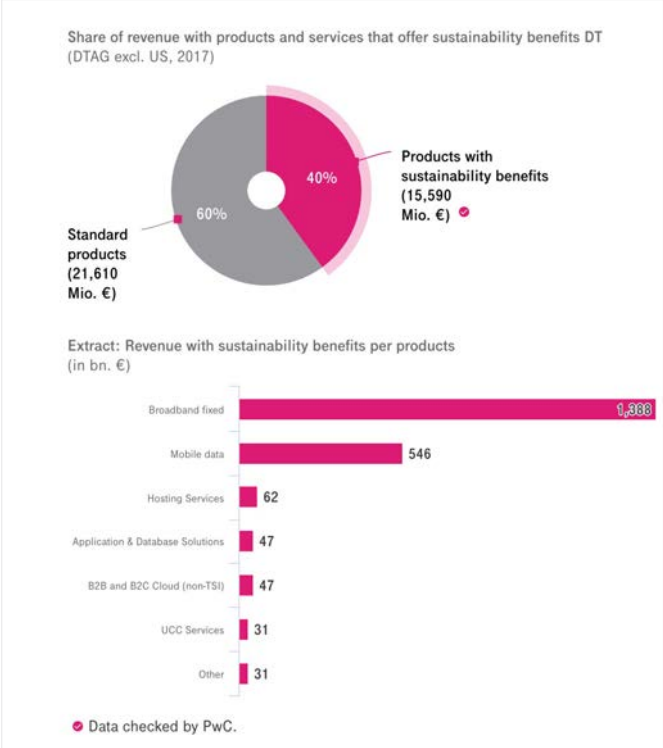
Making progress measurable

We measure our progress by means of various KPIs. For example, we use the Sustainable Revenue Share ESG KPI to measure the share in sales of products and services that are classified as sustainable based on a risk-benefit analysis. In 2017, 40 percent of our overall sales in Germany and Europe was generated with such products. We have defined performance goals, e.g., sales goals, as internal monitoring tools in certain fields such as e-health and Smart Home. We measure the impact of our collection campaigns with our Used Cell Phone Collection ESG KPI.

CONTINUED ANALYSIS OF THE SUSTAINABILITY BENEFITS OF OUR PRODUCTS

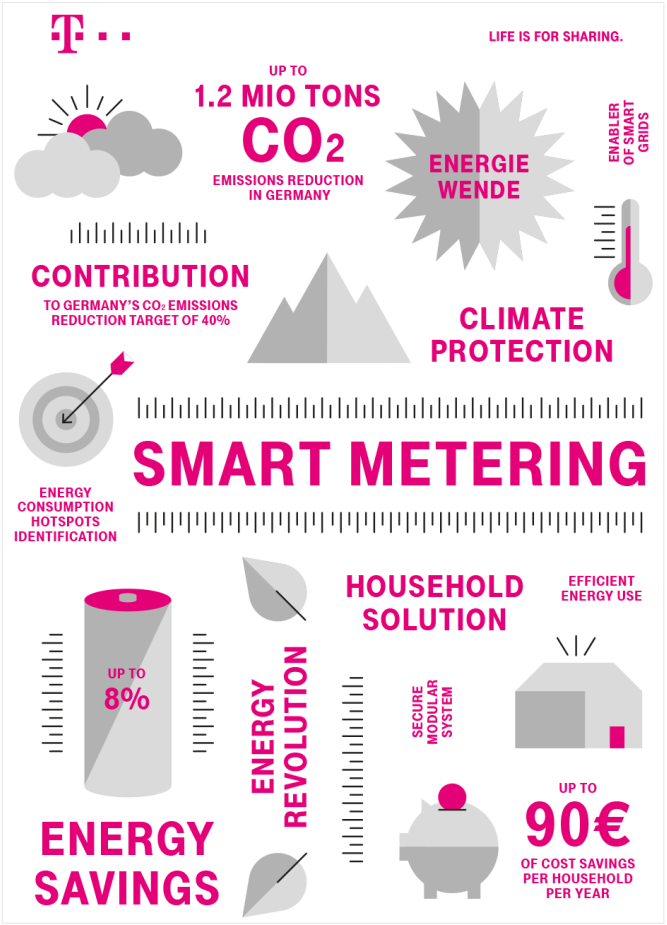
One building block of our integrated climate strategy is to analyze the sustainability benefits of our product portfolio. In 2014 we began analyzing our portfolio together with external experts based on sustainability criteria (analysis). We measure the result with the Sustainable Revenue Share ESG KPI. The share of such products was already at 40 percent in 2017 (excluding T-Mobile US).

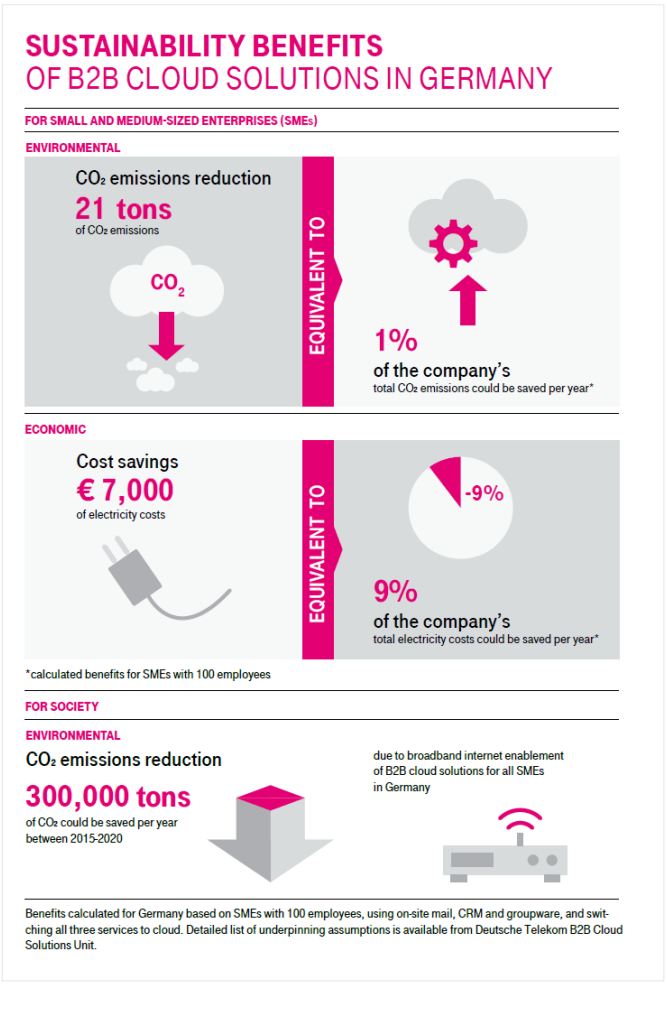
40% of revenue with products and services that offer sustainability benefits

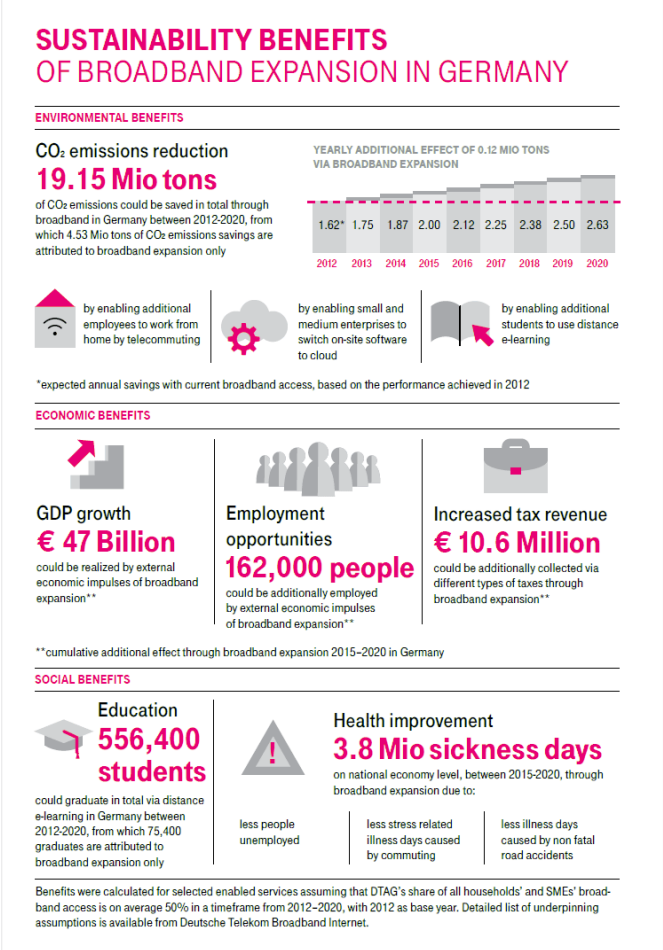


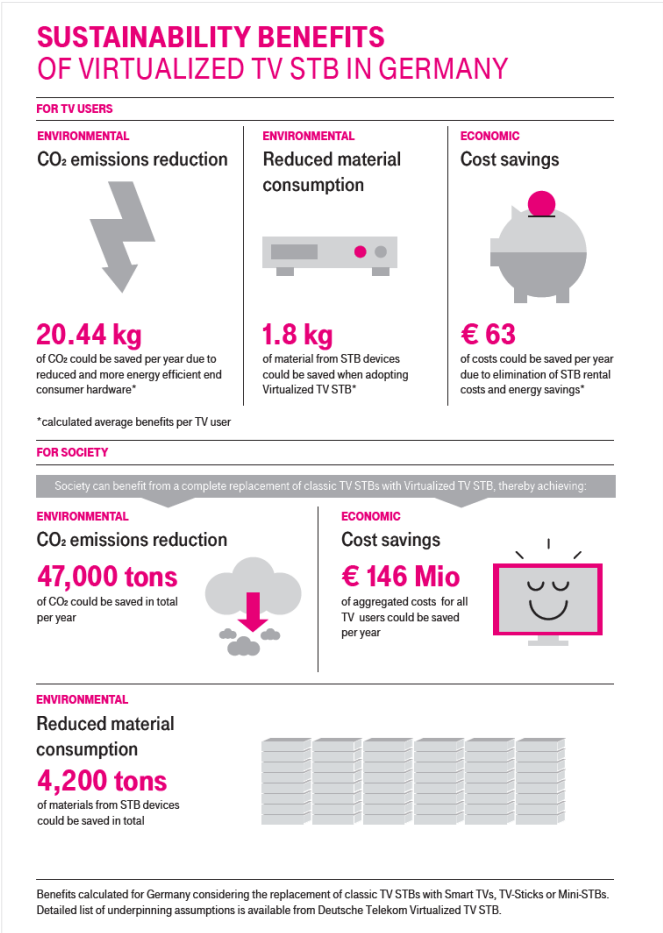
Examples of sustainability benefits include reduced CO_2 emissions thanks to virtual meetings instead of business trips, improved medical care by means of e-health solutions and resource conservation by replacing physical devices with digital solutions (e.g. phoning via a laptop instead of a fixed-line phone).

Overall, we have carried out in-depth analyses for 17 product groups with regard to their sustainability benefits and the corresponding business potential (as of year-end 2017). We have illustrated the benefits of some selected products based on all three pillars of sustainability (ecological, social and economic).









To date, there is no industry-wide established system that provides customers with sustainability information about ICT products and services. We have started to create just such a system using our product analyses – that is, to find out which sustainability contributions our products can make at all. Future plans also include keeping our customers better informed of these sustainability benefits, thereby sharpening our competitive edge.

PILOT PROJECT FOR ANALYZING THE SUSTAINABILITY OF OUR PRODUCTS

Studies such as GeSI #SMARTer2030 show that information and communication technology solutions (ICT) can make an important contribution to sustainable development. Many of our products offer economic as well as social and ecological benefits. Quantifying this added value and hence making it measurable is a challenge, since many of the social benefits of our products are only indirect. But we are tackling this challenge and testing various approaches. In addition to building a sustainable product portfolio, we have been participating since 2015 in the industry-wide Sustainability Assessment Framework (SASF) pilot project conducted by the Global e-Sustainability Initiative. The goal of this project is to develop a tool that can be used to evaluate a large variety of ICT products based on their sustainability. The results will also help determine sustainability risks along the value chain. The SASF evaluation criteria are not limited to environmental aspects but also include social criteria such as compliance with human rights and customer requirements such as cost transparency and data protection. With this comprehensive approach, SASF is setting new standards for product evaluation in the ICT sector.

We have been contributing to the development of SASF since the beginning and took part in the pilot study – an initial hands-on test – in 2016. In 2017 we began testing whether and how SASF can be integrated into our management processes. We will be continuing this testing in 2018. In addition, we also examine and evaluate other approaches for assessing the sustainability benefits of our products and services.

PHASE 2 M2M COMMUNICATION: OPPORTUNITIES OF DIGITALIZATION

Machines and products are becoming increasingly intelligent. Cars can communicate with repair shops, containers with logistics service providers. The technology that makes this possible is called machine-to-machine communication, or M2M. By 2020 the number of M2M connections around the world is expected to increase to 2.5 billion. Machine-to-machine communication is an important area of growth for us.

M2M can help ideally coordinate the processes of various devices, vehicles and entire industrial facilities. This helps increase industrial productivity, ensure efficient logistics, reduce energy consumption and conserve resources.

We also support the German federal government's Industry 4.0 initiative through our involvement in machine-to-machine communication. The initiative's objective is to maintain Germany's competitive edge in the technology sector.

New wireless technology allows for innovative applications

Our networks are the basis for a number of M2M applications, as mobile network technology is the key transmission channel of every M2M

connection. In this respect, the NarrowBand Internet of Things (NB-IoT) is gaining significance. As opposed to broadband applications, which enable transmission of large amounts of data, narrowband technology is specifically designed to reliably transfer very small data packages. Benefits of NB-IoT include its low energy requirements, extensive reach and low-cost device networking. NB-IoT is particularly suitable for use in logistics. When tracing transport containers, all that is needed is for the current position to be transferred about once an hour. Only very small amounts of data need to be transferred in small data packages – and not necessarily in real time. NB-IoT is even used for protecting biodiversity, in a technology that beekeepers can use to protect their bees.

We were pioneers in aiding the development of uniform NB-IoT standards and continue to drive it. NB-IoT is now available in more than 600 locations in Germany. More than 200 of our business customers in various sectors use this technology (as of year-end 2017). We are also leaders in the launch of NB-IoT in Europe and North America: we are already active in seven European markets and the USA with the technology. Our narrowband network should be available nationwide in the USA and in many European countries by the end of 2018.

The port of tomorrow
In 2017 we continued our involvement in the smartPORT logistics (SPL) pilot project for the port of Hamburg. The goal of the project is to improve HDV traffic flows at the port of Hamburg and in its vicinity. All relevant traffic and infrastructure data is collected and analyzed in real time for this purpose. Results can be used to inform users about waiting times, alternative routes or parking. The project is increasingly being integrated into commercial operation.

EU project AEOLIX: A platform for more efficient and climate-friendly logistics chains
The port of Hamburg is a part of the EU project AEOLIX. The goal of this project is to build a new ICT platform that networks numerous, previously isolated individual logistics systems across the EU. At the same time, practical services will be developed and tried out in 11 European test zones. T-Systems is participating in test zone 1: Intermodal Logistics in the Hamburg – Frankfurt Transportation Corridor. This zone will test a smartphone app that helps truck drivers drive in an ecologically responsible manner. Some 958,230 metric tons of CO_2 could be spared in ongoing customer projects MAN Telematics and SchmitzCargoBull Telematics as well as in additional new projects (e.g. AEOLIX) by analyzing driving profiles and ecodrive functions. The project will run until 2019.

AUTOPILOT – autonomous driving services for more efficiency
The goal of the EU project AUTOPILOT is to test autopilot services on the market. This also includes self-driving cars in short-distance traffic, self-parking cars and real-time car sharing. Such solutions are particularly efficient and environmentally friendly, resulting in an estimated 10 percent fewer CO_2 emissions as compared to conventional driving practices. The project will run from 2017 to 2019. Thereafter the services will be incorporated into regular operations. T-Systems is the project partner of AUTOPILOT and supports analyses on the feasibility and market launch of the new services.

Connected Car: Preventing traffic jams with connected cars
T-Systems has been developing and operating Daimler's Connected Car platform (Daimler vehicle backend) worldwide since 2013. The platform is the technical basis for the Live Traffic service, which provides drivers with real-time traffic information, thereby helping them avoid traffic jams. Live Traffic prevents about 30% of traffic jams per vehicle. This means that the approximately 5 million vehicles equipped with Live Traffic consumed about 6.2 million liters less fuel. This translates into CO_2 savings of about 15,000 metric tons.

DEUTSCHE TELEKOM AND FRAUNHOFER IML INAUGURATE THE TELEKOM OPEN IOT LABS

Deutsche Telekom and the Fraunhofer Institute for Material Flow and Logistics (Fraunhofer IML), based in Dortmund, have founded the "Telekom Open IoT Labs". At the new facility, up to six scientists from Fraunhofer IML, and three IoT experts from Deutsche Telekom, will work together to develop and test Internet of Things (IoT) solutions and bring them to market maturity. The collaboration is aimed at optimizing processes in the manufacturing, logistics and aviation sectors. The Labs will be open to other companies interested in collaborating with Deutsche Telekom and Fraunhofer to develop application-specific IoT prototypes. Telekom Open IoT Labs will thus add an industrial-IoT component to Deutsche Telekom's existing network of R&D facilities.

Prototypes for holistic IoT solutions
In a first step, the two partners will work jointly with interested companies to identify requirements for IoT solutions. They will then design and create relevant applications, developing and producing hardware, software and connectivity prototypes. Efforts will be concentrated on producing solutions that can later be launched for mass-market use. In work carried out to date in cooperation with Würth Industrie Service, for example, a prototype of a service button for the area of C-parts management was developed. This service button will optimize the reordering process for "C parts" such as screws, nuts and washers by applying narrowband IoT (NB-IoT) technology.

Paving the way with NB-IoT
Initially, the Deutsche Telekom / Fraunhofer team plans to concentrate on solutions based on NB-IoT radio technology. That technology is eminently suited for IoT applications in logistics, for example. The logistics sector has been digitalizing especially rapidly, because its companies have numerous business processes for which IoT solutions can provide significant added value in the short term. Logistics companies are using digital technologies to enhance transparency in their supply chains, as well as precision and efficiency in control of ship, rail and truck transports, and of their internal material flows.

Deutsche Telekom is already offering NB-IoT commercially throughout all of Germany. The Group also has a complete-coverage NB-IoT network in place in the Netherlands. In other European markets, such as Austria, Czech Republic, Greece, Hungary, Poland and Slovakia, Deutsche Telekom is expanding the existing coverage to additional cities.

SMART CITIES: INNOVATIVE SOLUTIONS FOR SMART URBAN SPACES

The majority of the worldwide CO_2 emissions come from cities – an effect that is being intensified by increasing urbanization. At the same time, cities can also be the driving force behind and the origin of sustainable solutions. Deutsche Telekom wants to use innovative solutions to help bring about sustainable transformation of cities. Some examples of this are intelligent, energy-saving street lights and connected waste containers that measure their fill level and report this to the public utility company. In order to bundle these approaches, we opened a European Smart Solutions Center (ESC) headquartered in Budapest in 2017. The ESC advises cities on the use of EU funding and develops Smart City solutions and platforms. What's more, we participate in numerous international projects on this subject. We have already installed Smart City solutions in 18 cities in 10 European countries.

mySMARTLife in Hamburg

The city of Hamburg, together with the cities of Nantes and Helsinki, were awarded the EU lighthouse project mySMARTLife in 2016. Numerous measures intended to launch the Smart City transformation are slated to be implemented by 2021.

The core topics of these lighthouse projects are increased use of renewable energies, climate-friendly living and environmentally friendly mobility. For example, use of electric vehicles will be promoted in the Hamburg-Bergedorf project region. Intelligent street lighting will also be employed. All projects involve active citizen participation. The Hamburg project proposal was backed by a total of 14 partners, including the borough of Bergedorf, HafenCity University, the HAW Hamburg university of applied sciences, electricity grid operator Stromnetz Hamburg, public transport operator Verkehrsbetriebe Hamburg-Schleswig-Holstein and Volkswagen. The project is subsidized as part of the European Union's Horizon2020 research and innovation program. The project results will be compared to other lighthouse projects in the EU. The project will also examine which measures can be implemented in the next mySMARTLife project cities – Varna (Bulgaria), Bydgoszcz (Poland), Rijeka (Croatia) and Palencia (Spain).

Kick-off for Smart City Bonn

Bonn was added to the Smart City project as another partner city during the reporting period. In November 2017, we began connecting street lighting and waste containers with intelligent sensors and measuring air quality.

The street lamps can now be dimmed and, with the help of motion sensors, automatically become brighter when pedestrians approach. The public utility company is also notified when a bulb is damaged or needs to be replaced. This technology saves up to 60 percent of the street lamps' operating costs. Additionally, we measure the fill level in a number of recycling containers using installed sensors. The municipal garbage service need not come for the container until it is actually full. Another sensor measures the air quality of the inner city. We also provide the associated analysis software.

PARK AND JOY – Digital park management

Preventing traffic jams and reducing CO_2 emissions – these goals pose major challenges to cities and communities. Digital applications can be of help here, as they can be used to improve traffic flows and lower harmful emissions with a small amount of administrative effort. One example of this is the PARK AND JOY app, which we launched in Hamburg in October 2017. Some 100 parking spaces have been equipped with sensors there, and the plan is for this figure to increase to 11,000 within the entire inner city area by the end of 2019. This will allow the app to immediately show drivers where there are empty parking spaces and navigate them to the exact spot. What's more, users can directly pay their parking fee using the application. PARK AND JOY can be downloaded for free in app stores. Bonn, Duisburg, Dortmund, Darmstadt and Moers are also planning to introduce PARK AND JOY in 2018.

Hackathon: Idea competition on life in the city

Implementing ideas for a liveable city of the future – that was the topic of Hackathon: Smart Public Life in the fall of 2017 in Bonn. A total of 220 developers, designers and concept developers from 10 countries took part in the competition in small teams, including both professionals and amateurs. Their task was to implement their own program idea within 24 hours by using the potential of the Internet-of-Things to create a liveable, smart city of the future. The Hackathon was a great opportunity to make new contacts and enhance skills. The best teams were given the chance to refine their project idea later on in the Telekom Incubator.

Navigation stick for the visually impaired in Czech Republic

As a socially responsible company, T-Mobile Czech Republic aims to support visually impaired people. We have been cooperating with the Czech Technical University to develop a unique navigation solution for the blind. Connecting up global navigation satellite systems (GNSS) and wireless data transfer networks has created one of the most advanced orientation solutions for visually impaired people. T-Mobile Czech Republic has supported the development of this navigation solution by providing connectivity in 3G and 4G, data SIM cards and modems. The newly developed navigation stick for blind people is connected to a smartphone and the navigation center. Based on a 2G-4G app, the service enables navigation data, voice communication and images to be transferred. It also utilizes a camera for orientation in buildings where GNSS does not work. A testing phase was completed in 2017. After a redesign and various improvements, a complete prototype of a new-generation stick has been completed. This new improved stick is being tested in 2018. We plan to launch the product at the end of the year.

Smart Cities in Croatia

In May 2017, Hrvatski Telekom installed the first smart payphones in the Croatian city of Zadar. The payphones are intended to provide all the local information required by citizens and the increasing number of tourists, while they are simultaneously given a broad range of next-generation innovative ICT services. The solution provided by the Croatian Postal Bank enables citizens to pay securely using their credit and debit cards.The City of Rijeka, in partnership with Ericsson Nikola Tesla, Hrvatski Telekom, Smart RI, Autotrolej and Rijeka promet installed two smart bus stops for Rijeka's citizens and numerous tourists. The smart stops offer a range of functionalities for a more efficient and enjoyable experience on city transport. They represent the world's technological breakthrough to the smart cities of the future.In collaboration with its partner EcoMobile, Hrvatski Telekom kicked-off a pilot-project for a

smart electronic record system for municipal waste collection in Velika Gorica. This system will optimize business operations at the Municipal Centre VG Goričanka and bring savings for citizens.

Smart Cities in Romania
In Bucharest, Romania, Telekom successfully rolled out the first integrated Smart City project in 2016. It combined four technologies: smart parking, WiFi connectivity, city safety, and smart lighting, all integrated through an Internet of Things platform.

Telekom Romania launched a second Smart City project in Constanta, and a third one in Piatra Neamt, in 2017. The solutions are part of the "Smart Street" concept, and they address urban needs such as efficient lighting, public safety, internet access, efficient parking, and electrical recharging for cars. They also enable the municipalities to provide useful information for citizens in real time, and to monitor environmental factors such as air quality.

A parking lot in Constanta with 50 places was equipped with sensors that allow drivers to track the availability of parking places in real time. In addition, the municipality can monitor the level of occupancy, and based on the statistics generated make an evidence-based decision on where parking lots should be supplemented.

The pilot project in Piatra Neamt foresees implementation of several innovative components, including a smart piece of street furniture. The solar-powered park bench will enable visitors at the park to charge their mobile devices and they can connect to the Wi-Fi internet services. As in Constanta, a Smart Lighting solution has been installed that offers the ability to reduce the light output according to predefined scenarios, resulting in lower energy consumption. The project also includes implementation of a station that charges two electric cars simultaneously.

INNOVATIVE SUSTAINABLE PRODUCTS AND SERVICES LAUNCHED IN GREECE

In 2017, the OTE Group launched and developed several products and services to help customers improve their sustainability performance. The Group also successfully implemented some significant projects with the same objective. A number of examples are listed below:

Smart City Applications: Smart city applications were enriched by the OTE Group in 2017 so as to offer local communities the benefits of smart technologies. The Smart City portfolio includes applications for Parking, Lighting, Air Quality Monitoring, Waste Management, and Building Energy Management. Over the next two years, the OTE Group is also expanding its Narrowband IoT network which will cover 95% of the population. This will enable it to reinforce the use of smart city applications.

Chalkida is the first city in Greece to have a complex of smart pilot systems installed: Smart Parking, Smart Lighting, Air Quality and Waste Management, together with an integrated smart city platform. These applications will facilitate the process of finding parking spaces and contribute to decongesting traffic and reducing the city's energy consumption. It will also provide useful information on air quality and optimize waste collection. The project was conducted in 2017.

In 2017, COSMOTE was one of the first providers in Europe to implement the technology for the Narrowband Internet of Things (NB-IoT) in the city of Patras. This was a first in Greece and the Smart Parking, Smart Lighting and Air Quality solutions were installed at a selected location in the city center of Patras.

GRNET: The OTE Group provided the Greek Research and Technology Network (GRNET) with ICT solutions (data center and cloud infrastructure) so that 31 interconnected hospitals were able to offer more efficient services to their patients and reduce operational costs. The project also helps the research community by allowing controlled and anonymous access to large volumes of imaging data to meet the needs of medical research.

Energy Management: The COSMOTE **Energy Management** service was implemented at several buildings in the Municipalities of Patras and Agios Dimitrios using remote intervention to monitor the energy consumption at these buildings in real time. The service is expected to contribute to protecting the environment, improving the quality of city life, and reducing operational costs.

After installing the service in five municipal buildings in the Municipality of Agios Dimitrios, the annual energy savings are estimated to be about 66 MWh, and CO_2 emissions are projected to be reduced by some 55 metric tons.

e-Fuel Management Service: The e-Fuel Management service is an integrated solution, launched in 2017 by COSMOTE in order to offer monitoring of fuel consumption in corporate vehicles and hence reduce operating expenses.

DIGITAL HEALTH CARE: OPPORTUNITIES FOR THE BEST MEDICAL CARE

A uniform telehealth platform permits cross-case, standardized data sharing among healthcare providers. Telemedicine assistance systems can support patients and their families in everyday tasks, help bridge long distances to medical personnel and optimize the care process. We are helping shape the digital healthcare system with numerous pilot projects.

- For example, we are involved in developing a solution for antibiotic treatment consultation at the St. Georg Hospital in Leipzig. The primary goal is to enable fast, secure data exchange between doctors, patients and health insurers. The State of Saxony sponsored the project with over EUR 1.2 million at the beginning of 2017. It will run until mid-2019.

- The Saxony Psychotraumatology Telemedicine Network is set to sustainably improve the integrated treatment chain for post-traumatic stress disorders and support digital mental health interventions. Telematic communication and interoperability should support consultation and treatment early on and should, above all, be tailored to the circumstances. The goal is to enable straightforward and location-independent access to the treatment network, make expertise universally available and guarantee cross-institution documentation and coordination of the healthcare process. The EU and the State of Saxony will be funding the innovative project, which will run until 2020, with EUR 1.4 million.

RAPID ENTRY INTO THE SMART HOME BUSINESS

We want to make it easy for companies – such as those in the telecommunications or energy sector – to expand their core business with a Smart Home offer. To this end, we developed a special white label portfolio. It combines our open and secure Smart Home platform Qivicon, Smart Home gateways, apps, devices and services, based on which companies can offer Smart Home solutions to their customers. Business customers also have the option of offering our white label app under their own brand and customizing it. Consumers can easily and conveniently control the devices in their connected home using the app.

QIVICON – Our smart home platform

A smart home can make life easier for its occupants in many ways, allowing them to control and monitor various devices remotely – from security systems and home appliances to home electronics. Of course, one big challenge remains, in that a provider's smart home solution is often not compatible with the functions and devices of other manufacturers. That is why we have jointly set up the open, manufacturer-independent smart home platform QIVICON. This platform gives consumers the option to combine devices made by different companies. More than 40 partner companies and brands currently offer their solutions on the platform.

In 2017 we added solutions with Volkswagen and the **ERGO Versicherung** insurance company, among others. Volkswagen owners can control their smart home directly using their car's infotainment system. And the ERGO emergency service will automatically initiate the necessary measures in case of an emergency, such as a water pipe breaking, if the customer does not respond to the system's notification.

We were also able to further increase the number of devices that are compatible with the platform during the reporting period. Products by the companies Centralite and Sengled will give consumers a better selection of security and illumination options in the future. Even today our customers can choose from among more than 200 different smart home devices.

Security and data protection at QIVICON

All communication via the QIVICON Home Base, which is connected to the Internet via servers, is encrypted. Any user data related to QIVICON is stored exclusively on our servers in Germany. All devices made by brands managed via QIVICON employ wireless technology based on state-of-the art security functions.

The Smart Home solution received ISO 9001 certification – the most widespread and most important quality management standard – during the reporting period. In addition, we commissioned the testing institute AV-TEST GmbH to check, for the third time, how secure the Qivicon Smart Home platform and the Magenta Smart Home app are. Once again, the rating was "very good protection".

Open platform

As a member of the **Eclipse Foundation**, one of the largest international open source communities, we are opening up the Qivicon platform to developers and start-ups. They will be able to use the platform to develop their own innovative smart home ideas.

Best Smart Home Network

We received the Best Smart Home Network award at the Broadband World Forum 2017. This award honors our smart home end-to-end solution and the hardware integration. Since September some 200,000 customers received a free upgrade for their Speedport smart routers. By integrating the smart home functionalities into the router, they can convert their own four walls into an intelligent home.

PROTECTING RESOURCES WITH CLOUD COMPUTING

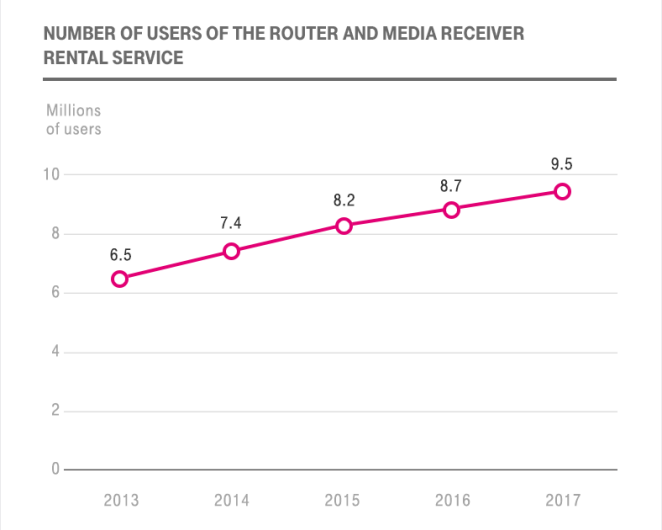
With cloud computing, our customers no longer need to be bothered with their own servers and storage media. In most cases, cloud computing is more resource and energy-efficient than running your own infrastructure outside of the cloud. Our data centers require up to 80 percent less energy thanks to more effective capacity utilization and less hardware. We also continue to work on further improving the efficiency of our data centers.

The cloud for the public sector

For companies that want to convert their systems to cloud solutions, T-Systems offers a program called The Cloudifier. We analyze the customer's IT landscape and identify which applications can be transferred to the cloud. Building on this, we developed the Cloudifier4Public in 2017 – a service with which T-Systems designs and implements customized cloud strategies for the public sector in Germany. Advice is tailored to the objectives and particulars of German public administration. There are clear framework conditions in place for the development of cloud architectures with regard to data protection and information security, safeguarding of statutory tasks and compliance with legal framework conditions.

DON'T BUY, RENT

We want to make sure that used routers and media receivers don't just end up in the trash. That is why we promote the "Don't buy, rent" approach. Our rental services conserve resources, reduce electronic waste and prevent CO_2 emissions. Customers return the devices if they cancel their contract. The devices are then either refurbished and rented out again or properly recycled. We have simplified the return process by introducing a returns portal. The online portal enables customers to manage their own returns. We actively and effectively promote the rental service in many ways including at Telekom Shops, online, via customer service and in product flyers. The offer has been well received by our customers; the number of people using the rental service increased to around 9.5 million by the end of 2017.



PRODUCT CERTIFICATIONS: DEMONSTRABLY SUSTAINABLE

Sustainable products are a key factor in competition for us. In order to inform our customers about the sustainability benefits of our products, we rely on recognized ecolabels, such as the Blue Angel in Germany. The majority of fixed-line phones and some media receivers boast the Blue Angel label. In 2017 the Media Receiver Entry and the Media Receiver 201 also received the Blue Angel. End devices certified with this ecolabel also contain information for customers as to how the products can be used in an energy-efficient manner. In addition to the Blue Angel, we have also increasingly been using the TÜV Green Product Label. This label exceeds the Blue Angel criteria in ways such as requiring inspections of working conditions at production sites. A number of our routers, including the Speedport Neo, have already been certified by the TÜV Green Product Label.In addition to ecological criteria, TÜV Green Product Label also provides for a review of working conditions in production plants.

The labels not only serve as information for our customers, however. Their strict requirements also help us see how we can further improve our products.

FAIRPHONE 2 AT T-MOBILE AUSTRIA

T-MobileAustria is one of the first mobile network providers in the world and the only provider in Austria to combine a mobile contract with Fairphone2, the first sustainable and socially responsible smartphone. The company has been offering this product since early2016and it gives new and current customers an opportunity to choose a sustainable way of life when it comes to their smartphones.T-MobileAustria actively supports the Dutch company Fairphone in its efforts to raise awareness of fair electronics and promote responsibility in the industry. Fairphone focuses on four main challenges: to make mining at the beginning of the value chain, design, production and the product life cycle more sustainable and transparent. In order to achieve this goal the company cooperates with initiatives for the extraction of tin and tantalum from conflict-free mines in the Democratic Republic of Congo and sources conflict-free tungsten from Rwanda. It also created the first pilot supply chain for fair-trade gold in smartphones and promotes longevity through the modular product design of the Fairphone2.In order to facilitate long-term use of the product, spare parts for the Fairphone2can also be ordered viaT-MobileAustria.

USED CELL-PHONE COLLECTION IN GERMANY

Germany's recycling and reuse rate for small electronic appliances is too low. Too many used cell phones, smartphones and tablets are stuck in drawers or disposed of illegally with the household waste. But these devices should be refurbished and reused or properly recycled to help us conserve valuable resources. We have been offering different ways for people to hand in their devices since 2003. Customers have been able to return their used, high-end cell phones and smartphones to Telekom Shops under a buyback program since 2013. They receive store credit from the Telekom Shop reflecting their old device's current value, which they can use to purchase a new device, or they can choose to have the amount booked to their customer account. Business customers can send in their used cell phones and smartphones through a buyback portal (www.handyankaufsportal.de) for business customers, which we created in 2016. After the device's value has been determined, the amount can be paid out or donated to a charitable organization. Together with company Teqcycle Solutions we also operate the Cell Phone Collection Center online portal. Through this portal, authorities, associations and other organizations have the opportunity to start collection campaigns for donating used cell phones and smartphones. The website provides an overview of these partners and the collection campaigns they conduct. Such campaigns took place in Bavaria and North Rhine-Westphalia during the reporting period. We also welcomed two new cooperation partners in 2017: the Frankfurt Zoological Society and Pro Wildlife e.V. At the end of the year we donated the proceeds from the devices collected through recycling and reuse to environmental organization Deutsche Umwelthilfe e.V.

In 2017 we joined together with radio station Antenne Unna to hold a cell phone collection competition between the communities of the region. The station followed the various collection campaigns and crowned one of the communities the victor. The objective of the competition was to increase listeners' awareness of environmentally friendly resource consumption. The proceeds from the sales and recycling activities were donated to the Lichtblicke e.V. charity.

In 2017 we collected exactly 148,888 used cell phones and smartphones throughout Germany and either reused them or had them properly recycled. During the cell phone collection campaign we use a data deletion process that is DEKRA certified and complies with strict data protection requirements**.** Defective cell phones or devices where certified data deletion would be too costly are properly recycled using state-of-the-art, environmentally friendly processes at the Telekom Recycling Center in Goslar. Up to 100 percent of the materials can then be reused – as recycled metals or for energy generation.

We depict the relationship between commercially sold and collected mobile phones with our Cell Phone Collection ESG KPI.

We map the relationship between mobile devices brought onto the market and taken back with our ESG KPI "Take-back mobile devices". In 2017, approximately 317,000 mobile devices (excluding T-Mobile US, AMC, Maktel, Crnogorski) were taken back throughout the Group.

Support of various collection campaigns

As in previous years, we supported the Die Handyaktion campaign conducted by different church-affiliated groups in the state of Baden-Württemberg in 2017 as well. This time the partners reinforced the campaign, together with the German Mineral Resources Agency and the Ministry of the Environment of Baden-Württemberg, with various educational measures. For example, they redesigned the "cell phone raw materials kit" for school classes. The kit contains various minerals that are used in cell phones. Using accompanying teaching materials, teachers can explain the significance of the raw materials in smartphones to their students.

The Responsibility and Sustainability. Join in! collection campaign in the state of Saarland, which we have been supporting since 2014, was extended until the end of 2018 due to ongoing interest. We are still a cooperation partner to the campaign, which focuses on projects such as providing special course material on the topics of cell phone collection and resource efficiency. Mutual cell phone collection campaigns with Saarland companies and institutions are a further focus.

HANDSET RECYCLING AT T-MOBILE USA

T-Mobile USA's device recycling program mobilizes customers to help reduce environmental and human health impacts from improper recycling. This program also increases access to quality reusable and refurbished equipment for those who need it, while conserving our limited natural resources.

Any wireless consumer can bring any make, model or carrier phone, battery, accessory, tablet or netbook into any T-Mobile USA location to be recycled for free. Through the JUMP! and Mobilize programs, T-Mobile USA incentivizes its customers to trade in their used devices and accessories for great deals on the latest technology. Those trade-ins are all reused, refurbished or recycled.

In 2017, T-Mobile sponsored a special holiday recycling campaign to encourage customers to bring in their used devices to T-Mobile. T-Mobile matched the recycled value of each device, and donated USD 1,000,000 from the campaign to Feeding America and Team Rubicon to support their hunger relief and disaster response initiatives. T-Mobile USA launched the recycling program for its customers in 2008, resulting in over 14.4 million devices being reused or resold since then. 87% of the devices that are taken back are reused or resold, with the rest being responsibly recycled by providers selected on the basis of their leading industry environmental certification.

In 2017, T-Mobile USA collected 4,130,582 used cell phones.

HANDSET RECYCLING PROJECT WITH PRIMARY SCHOOL PUPILS IN CROATIA

For many years, the international eco primary school in Sisak has been a beacon in its local community for collecting and dealing properly with old mobile phones. Hrvatski Telekom (HT) has a long tradition of proactive collaboration with Croatian schools and helps to teach pupils from an early age about adopting good habits for separate collection of waste, appropriate recovery and recycling. HT has been teaching pupils how to deal effectively with electronic waste, in particular the electronic waste from mobile phones and their accessories. This is an inspiring project within the company since it enables pupils to develop a responsible attitude toward environmental protection and waste management.

In2017, HT continued its cooperation with the eco primary school in Sisak and celebrated the World Environment Protection Day by awarding all pupils who participated in the project for collecting old handsets. This year the pupils collected180obsolete mobile phones, which HT handed over to authorized companies for environment-friendly treatment. Over a period of more than ten years, HT has used this project and other similar environmental projects and initiatives to collect a total of137,000old mobile phones and dispose of them in an eco-friendly way.

ACCESSIBLE PRODUCTS AND SERVICES

Deutsche Telekom wants to make it easier for people with disabilities to have access to the knowledge and information society. Not only do we offer subsidized rates to people from low-income households, we also offer them to people with hearing and vision impairments. We also support them with products and solutions especially designed to meet their needs.

Services for the hearing impaired

We set up a hotline (Deaf Hotline) for deaf and hearing-impaired customers in 2003. Up to 50 people currently call the hotline every day to get help with connections to their DSL routers or to find out more about special cell-phone rate plans, for example. The employees of the Deaf Hotline are equipped with live consultant workplaces that have HD cameras, among other things. Customers and live consultants can see each other using a video-based live chat and can communicate with each other in sign language. Since 2017 the Deaf Hotline has also explicitly offered the option of making appointments with technicians.

For deaf customers and members of the German association for the deaf, Deutscher Gehörlosen-Bund e.V., we operate a special online distribution site (www.telekom.de/deaf). There we offer a discounted mobile communications and fixed-line portfolio that is tailored to the exact needs of deaf people. Customers can order their desired plans directly on the website, can contact the employees of the Deaf Hotline or be forwarded to the new information exchange platform DEAF-Café in the Telekom Hilft community. The DEAF-Café provides a safe space to discuss or clarify questions about telecom offers together with other deaf people in groups and forums.

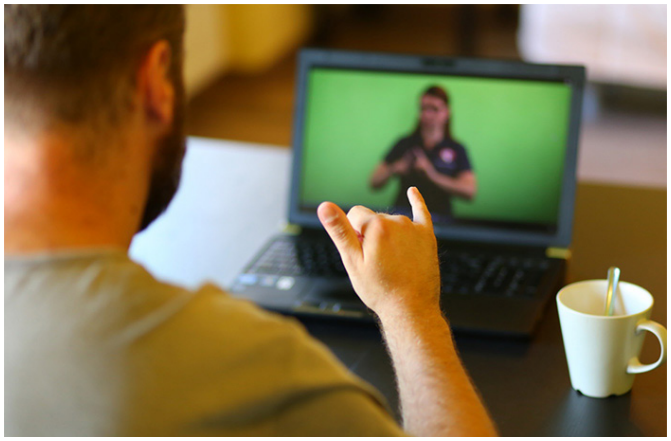
Engagement for hearing impaired people in Slovakia

About 1% of the population in Slovakia is hearing impaired, and Slovak Telekom is very active in developing comprehensive programs and activities to support them in ordinary everyday living situations. We also help families with hearing-impaired children to master their everyday lives. Another aim is to raise public awareness about the challenges they face.

Since 2015, Slovak Telekom has hosted a community portal where parents with hearing-impaired children can communicate with each other and find out important information. This portal supports hearing parents with hearing-impaired children in showing them how to properly stimulate and develop their children. In 2017, a lot of new content was added to the portal which was visited by thousands of individual visitors. A community of hundreds of returning visitors has started to form.

As a carrier, we provide significant support for the hearing impaired and offer them an advantageous mobile data package. In 2017, Telekom began to offer a preferential "Mobile Internet L" plan with a discount of more than 95 percent. In order to be eligible for the Mobile Internet L program for the deaf, the customer needs to be recognized as hearing impaired by the relevant Labor, Social Affairs and Family Office.

Since 2013, Telekom has also been offering a special mobile plan for hearing-impaired people thatincludes unlimited SMS and 2GB of internet data on the mobile phone, along with 20 free minutes to all networks at a price of € 12 per month.



SUPPORTING START-UPS: CREATING SPACE FOR IDEAS

hub:raum start-up incubator

We have been running our own start-up incubator in Berlin, Cracow and Tel Aviv since 2012 under the name hub:raum. This gives us direct insight into the innovative ideas of start-ups. In return, we offer access to our technological expertise and our customers. We also provide support with company development. Experienced entrepreneurs and Deutsche Telekom experts act as mentors to the start-ups in a variety of programs. In addition, hub:raum also provides selected start-ups seed funding of up to 300,000 euros.We made six investments in start-up companies in the reporting period. Interested start-ups can go to the hub:raum website and apply for collaboration or seed funding. Since April, hub:raum has been collaborating intensively with Partnering and Business Development at Deutsche Telekom, which is responsible for business collaborations. We also promote lots of new ideas for more sustainability with hub:raum.

hub.raum program for lightning-fast data transmission with 5G

The up-and-coming 5G mobile communications standard promises to provide more than just faster Internet speeds. This technology is creating entirely new possibilities for many sectors. So-called low latency interactions are a significant advantage. They enable very fast data transmission times. This could facilitate the tasks of first responders at accident sites, for example, by allowing them to exchange real-time data with doctors in hospitals. In 2017 hub:raum started a prototype program to promote the development of such innovative 5G-capable use cases in Europe. Companies have been able to sign up as partners for this project since October 2017. hub:raum has also been supporting good ideas for the use of the new mobile communications standard with test environments in Cracow and Berlin.

App in the gap: The eParkomat

In 2017 hub:raum invested in the eParkomat start-up company, which operates an app for digital parking space searches. Using an algorithm, the app calculates the number of available street parking spaces in real time. The app shows the empty parking spaces on a map and navigates the user directly to the respective space. The app also has benefits for the environment, since finding a parking space faster reduces the amount of CO_2 emissions in cities. In 2017 eParkomat successfully completed a pilot project in Prague with more than 25,000 public parking spaces. Thanks to hub:raum's investment, the company is slated to expand to other cities in 2018.

Mobile cell phone repair with Reparando

You need fast help if your cell phone or smartphone breaks down. Start-up company Reparando does the necessary repairs directly at their customers' home or office. Founded in mid-2015, the Stuttgart-based start-up already has 10,000 repair jobs under its belt and offers its services in 20 German cities. hub:raum has supported the company since 2017. Repair services such as those offered by Reparando extend the life cycle of smartphones, thereby helping save resources.

Start-up support for internal "founders"

Since 2011 we have been helping our employees develop their own concepts for new services and business areas at Deutsche Telekom within the context of the „UQBATE“ internal innovation program. Employees can present their ideas to interested colleagues on the UQBATE platform, create teams and then work together to gradually turn their ideas into products that are ready to go to market. 2017 was another year for exciting ideas. One of these ideas was BeOn Track, a particularly durable device for localizing people. BeOn Track does not use the GPS signal to locate people, but rather a new technology with a much longer battery life. This device could be used to quickly track down missing dementia patients, for example. The tracking device can be installed in a necklace or armband and works for up to 10 years.

TAKE-OFFS PROGRAM SUPPORTS REGIONAL START-UPS IN CZECH REPUBLIC

2017 saw the seventh round of the Take-offs program. The T-Mobile Czech Republic program provides financial support, long-term professional advice, and expertise to regional start-ups. The overall aim is to help potential entrepreneurs, who often come from vulnerable backgrounds (people in regions of high unemployment, women on maternity leave, senior or handicapped citizens, students without work experience).

Out of the 437registered projects this year, 40regional winners were chosen and announced by an expert jury at9 regional workshops run for all interested participants free of charge and attended by 550 people. The regional winners all receive a helping hand from experts in marketing, communication, and finance, as well as tangible, financial support worth EUR 3,700.

Members of the general public are invited to select the overall winner from among 40 regional winners. More than 14,000 people took part in the online voting and selectedPetr Šmídand his project called Hoblhome (kitchen products made of wood) as the overall public winner to receive an award worth EUR 5,500. A professional jury also selected a national winner. This yearDagmar Duškováand her project called Damilk (production of homemade cheese) was selected as the national winner and received prizes worth a total of EUR 25,900.

The Take-offs again enjoyed significant media coverage. The winners were invited to present their projects on TV and radio, and in various print and online media.

CONSUMER PROTECTION AND SECURITY

In October 2015, the European Court of Justice determined that the Safe Harbor Agreement was invalid. In accordance with the agreement, U.S. companies were able to self-certify that they met European data privacy regulations. But these principles were not effectively implemented at those companies. Edward Snowden's revelations also demonstrated that U.S. security authorities store all of the personal data transmitted to the United States. The protection of personal data is part of the shared fundamental values in Europe. It is up to the German government, the EU Commission and the United States to create an appropriate basis for secure data exchange between Europe and the United States.

For us at Deutsche Telekom, the decision passed by the Court of Justice of the European Union is a sign that we are on the right path. We called for an "Internet of short distances" at an early stage, ensuring a direct path from the sender to the recipient when transferring data - without any detours through other jurisdictions such as the United States. This has already been implemented in our networks.

European business customers are critical of data storage outside of Europe; demand for secure cloud services "made in Europe" is growing. Our security solutions meet this demand. We guarantee the same high security standards at all of our data centers. We also develop products for consumers, such as products offering end-to-end encryption, and solutions for SMEs to detect and fend off hacker attacks in real time. In addition to data security, we have also introduced measures for consumer and youth protection.

To us, security is more than just protecting data and infrastructure - it also means protecting the public's health. We have established a Group-wide basis for this with our EMF policy.

CONSUMER AND YOUTH PROTECTION

We stand for the highest possible standards when it comes to consumer and youth protection. We want to teach children and young people in particular how to use digital media safely and effectively and protect them from inappropriate content, which is why we work throughout the Group to improve their media skills in a variety of projects. We also work with a variety of initiatives and partners to create a child-friendly Internet. We have reinforced our stance with numerous national and international voluntary commitments and internal codes of conduct. In doing so, we often exceed the standards required by national regulations.

GOALS	MEASURES	MEASURING SUCCESS
› Best possible protection of users and minors	› Developing data privacy products › Binding Corporate Rules Privacy › Promoting media skills › Partnerships and alliances	› Online reporting about data protection measures and activities

PROTECTING CONSUMERS AND MINORS

Data privacy and data security are very important to us. In 2008 we created a Board of Management department for Data Privacy, Legal Affairs and Compliance as well as the Group Privacy unit. The responsible Board member has been advised by the independent Data Privacy Advisory Council, which comprises renowned experts from politics, science, business, and independent organizations, since 2009. In addition, we were the first DAX company to have our data privacy organization reviewed and certified according to the IDW PS 980 standard in September 2014. At Deutsche Telekom, data protection and data security are subject to the Group's Binding Corporate Rules on Privacy and the Group Policy on General Security. The Binding Corporate Rules on Privacy govern the handling of personal data. The related document Binding Interpretations contains specific recommendations and best practice examples for implementing the EU General Data Protection Regulation, which will be enacted in May 2018. The Group Policy on General Security includes significant security-related principles followed within the Group. Both guidelines set forth binding standards that are in line with international standard ISO 27001. These policies allow us to guarantee an adequately high and consistent level of security and data privacy throughout the Group. Deutsche Telekom has been publishing an annual transparency report for Germany since 2014, which covers the types and amount of information we disclose to security agencies. This way we comply with our legal obligations as a telecommunications company. Our international business units have also been publishing similar transparency reports since 2016. We also provide up-to-date and transparent information about all of our activities and measures regarding data protection and data security on our Group website.

Our products and services have always provided a high degree of data privacy and data security. Growing volumes of data require special precautions to protect the privacy of citizens, which is why we approved eight mandatory principles for handling big data, or large amounts of personal data, in 2013. In January 2015, we also approved specific measures to protect data and infrastructure in our "Ten-point program for increased cyber security." We also developed new protective products including our Mobile Encryption app designed to ensure end-to-end encryption of mobile communication.

Data privacy and security also play a key role in the development of our other products and services. Our Privacy and Security Assessment (PSA) procedure allows us to review the security of our systems in each step of the development process. This procedure applies to newly developed systems as well as existing systems that undergo changes in technology or in the way data is processed. We use a standardized procedure to document the data privacy and data security status of our products throughout their entire life cycle. Youth protection aspects are also taken into consideration in our product and service design. In Germany we involve our youth protection officer in all issues regarding planning and designing offers for young people. The youth protection officer can then recommend restrictions or changes. We have appointed a Child Safety Officer (CSO) at each of our national companies within the EU who is responsible for issues pertaining to the protection of minors. The CSO acts as a central contact for members of the community in the respective market. The CSO also plays a key internal role in coordinating topics related to the protection of minors. These measures increase the consistency and transparency of Deutsche Telekom's involvement in protecting minors.

Strategic approach to protecting minors from unsuitable media content

Our strategy to protect children and young people from harm when using digital media is based on three pillars. We

- provide attractive, age-appropriate offers for children and give parents and guardians tools (filters) that they can use to restrict the access minors have to harmful content,
- participate in combating child abuse and its depiction to the extent that this is permitted within the national legal framework,
- and we promote skills to help people use the Internet safely.

We also collaborate closely with prosecuting authorities and NGOs as well as other partners from business, politics, and society to ban online content that is harmful to children and young people. We have documented our commitment to protecting minors from unsuitable media

content in Germany in relevant codes and introduced minimum standards. In 2007, we committed ourselves to fighting child pornography on the Internet throughout the European Union. At a global level, we have been a member of the global association of mobile providers, GSMA, since 2008, which pursues the same objectives. In order to better coordinate our activities within the Group, we also approved a list of general guidelines in October 2013 for our activities to help protect minors from unsuitable media content and made these guidelines mandatory at international level, thereby setting new standards in our markets. In consideration of their particular cultural situation and business model, each national company in the European Union can further specify these measures, adopt additional measures, and also determine their own strategic focal points.

Because protecting minors from unsuitable media content poses a challenge that affects many industries, we cooperate with different organizations for the protection of minors and participate in coalitions that coordinate the involvement of companies and organizations from the Internet and media sector. For example, we are a member of the "CEO alliance to better protect minors online", whose goal is to make the Internet a safer place for kids. We also play a leading role in the ICT Coalition for the Safer Use of Connected Devices and Online Services by Children and Young People in the EU. In this coalition, we pursue a comprehensive cross-industry approach based on six principles that expressly includes helping young people learn media skills.

In January 2013, as part of both coalitions, we announced plans to implement an EU-wide set of measures based on the principles of the ICT Coalition. The ICT Coalition published an annual report in April 2014 on the implementation of corresponding measures at all of the companies represented in the ICT coalition. The report, which was written by an independent expert from the Dublin Institute of Technology, comes to the conclusion that Deutsche Telekom's approach to implementing the ICT Coalition's principles is exemplary.

New strategic Cyber Defense and Security Operation Center
In October 2017, the Telekom Security unit expanded the Cyber Defense Center in Bonn into an integrated Cyber Defense and Security Operation Center (SOC). This new defense center is one of the largest and most modern ones of its kind in Europe, analyzing one billion pieces of security-relevant data from 3,000 data sources every day in a nearly fully automated process.

PROTECTING PERSONAL DATA

Almost one-third of all Germans are afraid of their data being misused and of insufficient data security in general. These were the findings of the 2016 Security Report that we commissioned from the Allensbach Institute. However, we are by far the most trusted company in the ICT industry when it comes to handling personal data. And we are proud of it, because protecting our customers' data is one of our top priorities.

We also provide up-to-date information about all of our data protection activities on our Group website at https://www.telekom.com/en/corporate-responsibility/data-protection-data-security. The following are just a few examples of our activities during the reporting period.

Competition on digital data protection tools
At the beginning of 2017, we launched a worldwide idea competition. The competition called on participants to create a privacy bot - an intelligent, digital data protection tool. The bot had to be useful for all sorts of web services, not just aimed at individual providers such as Facebook or travel portals. The award ceremony took place in July in Berlin. A team from Germany was the winner. This team developed a privacy bot that automatically verifies the Privacy Notices of Internet services based on individual preferences specified by the user. The privacy bot also provides a variety of other information relating to data privacy, such the number of data privacy incidents affecting the relevant Internet provider in the past.

There were 12 entries, five of which advanced to the final round, with the top three being awarded prize money. The jury was made up of data privacy experts as well as specialists from the Internet economy and the world of corporate communications. Among its most prominent members was Peter Schaar, former German Federal Commissioner for Data Protection and Freedom of Information.

Mobile protection
According to the 2016 Security Report, about half of smartphone owners in Germany have no software installed on their phone to protect it from cyber attacks. Since November 2017, we have partnered with the company Check Point Software Technologies to offer the Protect Mobile security solution for smartphones to our consumer customers. Protect Mobile detects and wards off cyber attacks in the mobile communications network, before they can even get to the smartphone. This protection is automatically integrated into Deutsche Telekom's mobile communications network. The Protect Mobile app detects additional cyber attacks when browsing the Internet on a WLAN or using hotspots as well as when downloading apps, doing online banking or surfing in the browser. Deutsche Telekom customers can add this option on to their existing mobile phone contract. For the most complete protection, the free app is available for Android and IOS from app stores.

Simple data privacy statements for everyone
Data Privacy Notices are often incomprehensible to the layperson. Our one-pager provides our customers with an easy-to-read overview of data privacy at our company. It contains simple, condensed information on the basics behind our data processing activities. It does not replace our formal data privacy statement, to which we link in the document and which complies with legal requirements. Instead, it provides users with transparent information on how and to what extent we process and use personal data. With this one-pager, we have followed an initiative launched by the National IT Summit, supported by the Federal Ministry of Justice and Consumer Protection.

Encryption for all
Together with the Fraunhofer Institute for Secure Information Technology (Fraunhofer SIT), we launched the "Volksverschlüsselung" encryption solution in mid-June 2016. It is a simple, free way to encrypt emails. We operate the solution at a high-security data center. The keys are generated on the user's device. The user is the only person with access to them; they are not sent to the infrastructure operator. To use the encryption, users only need to install the software and identify themselves as part of a simple one-time process. This product supports the federal government's digital agenda. What's more, we fulfill the requirements of the Charter for the Promotion of Trustworthy Communications (Charta zur Stärkung der vertrauenswürdigen Kommunikation), which was proposed and signed by representatives from the business and scientific communities as well as by political representatives. For more information, go to www.krypto-charta.de/.

Other examples of our comprehensive data security offering

- Information on cyber criminals, malware and phishing is distributed over thousands of websites on the Internet. The www.sicherdigital.de website brings this information together, providing users with easy access to security issues. Young people, adults and businesses can find useful information and specific tips concerning security and data protection.
- The "Confidential" issue of our We Care magazine talks about how dangerous hacker attacks can be and how users can protect themselves.
- Users can track cyber attacks on our website in real time using our security dashboard. We show the countries where the cyber attacks are coming from on a map. For more information on this, go to www.sicherheitstacho.eu.
- Our Netzgeschichten (Network Stories) also discuss issues regarding protection of minors and consumers. You can watch all of our videos on Youtube: https://www.youtube.com/user/deutschetelekom

COLLABORATION FOR THE PROTECTION OF MINORS

We want to create a safe, positive online experience for children and young people. We offer them attractive, exciting content on age-appropriate websites.

Promotion of standardized child protection offers

In August 2016, we joined the non-profit organization JusProge.V.. The organization operates the child protection program JusProg. The software, which can be installed on any computer, allows parents to decide which content their children can see. The system works with filter lists, among other things, which block many websites with unsuitable content and content that may even impair the development of minors. The system also allows you to enter customized settings based on age for the display of age-appropriate content.

This software is the only general child protection program in Germany that has been officially recognized by Freiwillige Selbstkontrolle Multimedia-Diensteanbieter e.V. (FSM, association for the voluntary self-monitoring of multimedia service providers) pursuant to statutory requirements (Interstate Treaty on the Protection of Human Dignity and the Protection of Minors in Broadcasting and in Telemedia). The software was most recently evaluated in March 2017.

We decided in 2016 to donate the rights to the program code behind our child protection software (Windows) and our child protection app, Surfgarten, (iPhone/iPad) to JusProg e.V. in order to expand our involvement in child protection efforts.

Teachtoday in the Aktionsbund Digitale Sicherheit (Digital Security Action Alliance)

In addition to these solutions, we also promote secure and responsible media use among children and young people with our Teachtoday initiative. The initiative supports children and their families with practical and everyday tips and materials.

FIGHTING CHILD PORNOGRAPHY

We consider it our obligation to take rigorous action against depictions of child abuse on the Internet. We have been involved in an EU-wide fight against the depiction of child abuse since 2007 in the European Framework for Safer Mobile Use by Younger Teenagers and Children. Since 2008 we have been committed to combating the spread of such content together with other mobile providers in a global association.

Since 2013 we have been actively participating in two cross-industry coalitions committed to fighting child abuse on the Internet, the "CEO Coalition to make the Internet a better place for kids" and the "ICT Coalition for the Safer Use of Connected Devices and Online Services by Children and Young People in the EU."

New structures for cooperation on child safety on the Internet

We were involved in the work of the Centre for Child Protection on the Internet (I-KiZ) until the end of 2016. The I-KiZ was dissolved at the end of 2016. However, the important fields of activity of the forum were assumed by existing networks. The safer-internet.de association, for example, took over the jugend.support advice and help system. The No Gray Areas project is now being coordinated by jugendschutz-net – with the assistance of Freiwillige Selbstkontrolle Multimedia-Diensteanbieter e.V. (FSM, association for the voluntary self-monitoring of multimedia service providers). We are actively supporting this initiative as well.

DIGITAL INCLUSION OF SENIOR CITIZENS AND SCHOOL CHILDREN IN CZECH REPUBLIC

As part of our e-safety strategy, T-Mobile Czech Republic issued a brochure called “Safely on the Net” that will be distributed to our customers for free in the shops. The illustrated and lifestyle-like publication was written in cooperation with a specialist on e-safety. It is intended for all users of the internet but with the main focus on parents. It includes tips on avoiding risks when using computers, the internet, and social networks in particular.

The main part is dedicated to tips on how to protect children from potential abuse and the Školák (“Schoolchild”) package is a special offer for parents of schoolchildren. Independently of the child’s mobile credit, parents can purchase the package to keep an eye on their children’s movements, protect them against inappropriate content on the internet and keep track of their mobile credit. The package is linked to the “Surfie” application. This app is provided free of charge and makes it possible to track the location of children and restrict viewing of internet content.

The app is in the Czech language, works with iOS and Android operating systems, and includes three licenses. These can be used to protect three children or they can be installed on three different devices. The app requires internet access and the bundle therefore contains a 10 MB data allowance per month for the child. After the data allowance has been used up, the internet access speed slows down. However, children will still be able to use the app.

In the area of IT and e-safety, we held 4 seminarsfor senior citizens on “How to use mobile phones” and “Internet and apps” at the Centre for seniors in Prague. The seminars were run for 25 participantsbyT-Mobile employees.

PROTECTION FROM CYBER BULLYIN

Our Computerhilfe Plus service offers reliable protection from cyber bullying and competent assistance in the event of libel on the Internet. Consumers, especially families with children, can get tips and instructions here about safe handling of data in social networks and messaging services.

If a customer is affected, Deutsche Telekom experts will help them delete insults, disreputable slander or other defamatory content on the Internet. This involves researching the appropriate contacts, initiating exchanges between the conflicting parties and compiling replies. Our services are tailored to meet the needs of each case. In addition to a digital service, a service phone number (0800-330 1473) has also been set up where Deutsche Telekom experts provide assistance.

Since the introduction of Computerhilfe Plus, the need for security and support for digital topics has risen steadily. That's why the Digital Schutzpaket (Digital Protection Package) will replace Computerhilfe Plus in the spring of 2018. This package offers comprehensive preventive measures such as home network security and data backup. It also provides assistance in case of damage, such as financial losses due to online purchases, data retrieval or cyber bullying.

CYBER SECURITY

Criminal hackers are getting more and more professional by the day. Private individuals as well as public organizations, companies and the military are all at risk. Weaknesses in computer systems are often taken advantage of within hours, with attacks being run fully automatically.

As a responsible ICT provider, we are fighting this trend. Our business model includes guaranteeing our customers a high degree of security and effectively protecting the data and infrastructure of the people and companies who use our services from unauthorized access.

GOALS	MEASURES	MEASURING SUCCESS
› Maximum protection of our infrastructure from attacks › Guaranteeing data security	› Establishing the Cyber Defense and Security Operation Center › Analyzing attacks › Developing defense strategies › Entering into collaborations	› Web portal: Data privacy and data security › Web portal: Telekom Security

PROTECTING OURSELVES AND OUR CUSTOMERS

Based on our Group strategy, we promote our business with security products and services throughout Europe. In 2016 we united all security-related departments Group-wide under one roof, thereby expanding our abilities to not only detect cyber attacks early on but also to quickly introduce countermeasures. Our new Telekom Security unit started up operations at the beginning of 2017. It focuses on internal security issues and develops security solutions for consumers as well as business customers. With this approach we can provide our customers with the perfect security solutions along the entire value-added chain, from product development to secure, high-performance networks and high-security data centers to applications and individual consulting.

We are always working to develop new ways to defend against attacks. To this end, we established our own Cyber Defense Center in Bonn in 2014. There we analyze behavioral patterns on the Internet and draw up defense strategies. In October 2017 we expanded the Center, which is now an integrated Cyber Defense and Security Operation Center (SOC). This new defense center is one of the largest and most modern ones of its kind in Europe, analyzing one billion pieces of security-relevant data from 3,000 data sources every day. What's more, the cyber defense center processes about 1,000 requests, filters about 1,000 viruses and malware programs and scans about 10 million incoming e-mails for spam every day. This is how we protect our infrastructure, and hence also our customers' data. Some 200 security experts work round the clock at the new SOC in Bonn and its affiliated national and international locations.

The measures that we undertake to fight cyber attacks on our own infrastructure are also available to other companies. More than 30 German DAX companies and SMEs are already employing our services for their own protection.

New dangers require new solutions

Technological innovations can bring new dangers. That is why we develop targeted measures for combating potential new security risks – such as those associated with drones, for example. We developed the Magenta Drone Shield together with our partner Dedrone. At Drone Detection Day 2017, we presented the drone defense shield to the public together with DFS, the German air traffic control service.

Collaborating in the name of security

Cyber security is a communal task. In order to further improve collaboration in the area of digital defense, we regularly host the Cyber Security Summit, in collaboration with the Munich Security Conference. The last summit was held in June 2017. We also organized the Magenta Security Congress in 2017 for the second time.

We also collaborate with research institutes, industry partners, initiatives, standardization committees, public institutions and other Internet service providers on a global scale. Together, we want to fight cybercrime and improve online security. We collaborate, for example, with the German Federal Office for Information Security (BSI) throughout Germany and with the European Union Agency for Network and Information Security (ENISA) at a European level.

We also provide up-to-date information about our numerous data protection activities at www.telekom.com/en/corporate-responsibility/data-protection-data-security.

CYBER SECURITY SUMMIT

Together with the Munich Security Conference, we organized the Cyber Security Summit (CSS) in June 2017, which marked the fifth time we did so. The venue was Tel Aviv. Israel is among the leading countries in the area of cyber security.

About 150 high-ranking international politicians, top managers and scientists met at the conference to discuss the biggest cyber security challenges and offer ideas for solutions. Also up for debate were the topics of refining international cyber strategies and how to protect critical infrastructures in the brave new connected world.

MAGENTA SECURITY CONGRESS

How do I adequately protect myself and my company from cyber attacks? What are the latest security trends and solutions? How high is the risk of elections being hacked in Germany? Questions such as these were the focus of the Magenta Security Congress, which took place on June 20-21, 2017 in Munich. There Deutsche Telekom teamed up with experts in the security sector for the second time to share current cyber security developments with national and international partners as well as customers.

IT DRONE DEFENSE SHIELD

Drones can make many processes easier and more efficient – for example, in the film and surveying technology or logistics sectors. But the technical opportunities drones provide can also be misused for illegal and criminal objectives. Since the end of 2016, the Magenta Drone Shield has offered our customers an IT solution that protects them from the increasing danger of private drones. Business customers with critical infrastructures, data centers, stadiums, and authorities can secure their premises from remote controlled flying objects with the shield and thus defend themselves against espionage, smuggling and vandalism.

In order to develop the Magenta Drone Shield, we first intensively tested the worldwide leading systems for detecting and defending against drones. We then bundled the best technologies into an integrated offer together with our partner Dedrone. The Dedrone DroneTracker, which, as a special Telekom version, is part of the Magenta Drone Shield, detects drones with the help of various sensors such as video cameras, frequency scanners and microphones. We also help our customers fight the danger of drones with organizational measures and, if necessary, by implementing electronic countermeasures. The use of jamming must be approved by the necessary authorities.

Drone Detection Day 2017

At Drone Detection Day in June 2017 in the Hessian city of Langen, we pointed out the challenges of the ever-growing use of drones together with DFS, the German air traffic control service. The Magenta Drone Shield was also presented to the public. The shield reliably detected various types of drones, which simulated various danger scenarios, and issued warnings about them.

MOBILE COMMUNICATIONS AND HEALTH (EMF)

Electromagnetic fields (EMFs) are a prevalent element in our connected world, even if we are not able to perceive them directly. Their effects on our health remain a topic of discussion. It is very important to make sure that the EMFs employed do not present a problem for people or the environment when we use them in mobile communications.

The effects of electromagnetic fields have been thoroughly researched over past decades in numerous scientific studies. The World Health Organization (WHO) analyzes the findings of scientific research and recently made a statement regarding the results in October 2014. In its statement the World Health Organization concludes that the current threshold values for electromagnetic fields ensure that mobile communications technology can be used safely but that further research is required.

Deutsche Telekom has made a commitment to actively address scientific research on mobile communications and health, and provides detailed information on the Group website regarding the latest technology and scientific risk assessments published by expert committees and organizations. To this end, we published a brochure titled "Fakten zu Mobilfunk und Gesundheit" ("Facts about mobile communications and health") and revised it in 2017. The document is available on our Group website: https://www.telekom.com/de/verantwortung/klima-und-umwelt/mobilfunk-und-gesundheit

GOALS	MEASURES	MEASURING SUCCESS
› Protecting people's health	› EMF Policy › Voluntary commitment	› Evaluating the EMF Policy

STRIVING FOR SECURE MOBILE COMMUNICATIONS

We want to make our mobile communications infrastructure and our new products, as well as the processes on which they are based, as resource-efficient, secure and safe for health as possible. In Germany these activities are based in particular on voluntary commitments by mobile communications providers and an agreement with local authorities' associations. Compliance with these voluntary commitments is reviewed every two years by external experts. We submitted our annual mobile communications expert report to the German Federal Government in 2016. What's more, in collaboration with Telefónica, we also support the information portal www.informationszentrum-mobilfunk.de.

Our Group-wide EMF Policy, which we adopted in 2004, plays a pivotal role. The policy specifies standardized minimum requirements in the area of mobile communications and health, requirements that by far exceed those set forth by national laws. Our policy provides our national companies with a mandatory framework that makes sure that the topic of mobile communications and health is addressed in a consistent, responsible way throughout the Group. All of our national companies have officially accepted the EMF Policy and implemented most of the required measures.
Our EMF Policy stipulates the following principles and measures:

Transparency
We place importance on discussing issues involved in mobile communications openly. We make all relevant information regarding our mobile communications equipment in Germany accessible to the public, e.g., on the EMF database operated by the German Federal Network Agency.

Information
We provide consumer information that is easy to understand and pursue a fact-based, sound information policy. On our Group website we provide the latest information to those interested. We also provide our customers with information on the SAR levels of their devices. In addition, customers can get information on SAR levels at many of our shops, via our free environmental hotline or via e-mail.

Participation
We rely on close collaboration and constructive dialog with all those involved, including communities, when it comes to network expansion. Our goal is to find amicable solutions and negotiate acceptable compromises, which can only be achieved by responding fairly to critical arguments and being ready to learn from mistakes.

Promoting science & partnerships
Our guidelines call for promoting targeted research, scientific excellence, transparency, objectivity and intelligibility.

We conduct ongoing reviews of compliance with our EMF Policy. The findings are used to improve individual aspects and develop solutions in different working groups such as our EMF Core Team and the EMF Technical Working Group.

EVALUATING AND IMPLEMENTING THE EMF POLICY

We want to seamlessly implement our EMF Policy throughout the Group. We help our national companies do this by providing specific tools. For example, we formulated standardized policies for funding research, for example, and published these on the Deutsche Telekom

website. The national companies take these policies into account when formulating their own funding programs. We also rely on our national companies' own initiative and encourage them to continue to improve their measures even after they have fully implemented the EMF Policy. The dialog conducted by the Deutsche Telekom national companies with other network providers and with consumers, politicians and scientists plays a central role in this context.

Regular reviews show us that the EMF Policy is being implemented in all of our action areas. We are also working on expanding our country-specific activities.

In 2016 we introduced small cells, an innovative, high-performance mobile communications technology. Small cells add additional capacity to our mobile communications network in places with high traffic volumes. Small cells generally emit weaker electromagnetic fields than traditional macrocells as they are used in mobile communications networks. Due to the small distance, the cell phone's transmission power can be reduced with small cells. Because cell phone transmission levels are often the main source of electromagnetic fields in our immediate environment, reducing these is a particularly effective way to reduce EMF exposure. In 2017 we commissioned a study from RWTH Aachen in cooperation with TU Ilmenau. The study aimed to elaborate practical procedures for assessing the effect of small cells on people and the environment. The results were discussed in October 2017 in a workshop with representatives of various scientific institutes and the competent authorities.

The state capital of Munich has partnered with Deutsche Telekom since 2016 to conduct a pilot project adopted by the Munich City Council for the development of innovative small cells. During the project, small cells sites were measured, and the results were presented to the City of Munich in July 2017.

In Austria, the citizens' mobile communications forum gives interested citizens the opportunity to ask experts questions about mobile communications directly and online. The forum is an initiative sponsored by the industry association Forum Mobilkommunikation (FMK). Over time, it has grown into a knowledge platform containing answers to the most important questions regarding the topics of mobile communications technology and mobile communications and health.

SOCIETY

We want to be a trustworthy partner for people in an increasingly digital world and want to enable equal participation in the information and knowledge society to as many people as possible. That is why we are laying the foundation for everyone being able to navigate the digital world safely and competently. We are involved in social concerns with our own initiatives and programs and support charitable organizations.

A RELIABLE PARTNER IN THE DIGITAL WORLD

The digital revolution is changing our lives. The technological opportunities that come along with it are almost infinite. Digitalization has the potential to make the world a better place to live in – by providing easy access to information, enabling greater transparency and providing a previously unheard-of capacity to create networks. But it also bears risk. This raises many general ethical issues: How much technology is (still) good for human beings? What defines humans and differentiates us from machines and robots?

To stand still or go back are no options because the digital development cannot be stopped or even reversed. Rather, digitalization must be designed for the purposes of human beings - a task that challenges everyone: politics, economy and civil society. In addition, humans must be enabled to use opportunities and to avoid dangers. In this context we as a telecommunications company consider ourselves to carry responsibility. Grouped together under the question "Are we stumbling blindly into digitalization? We need digital responsibility!" we started an initiative in 2016, with which we are facing our Corporate Digital Responsibility. The main idea behind this is that we have to deal with the question of exactly what shape digital responsibility is going to take. But no one company, institution or government can mandate digital responsibility on its own. It is something that involves everyone. For this reason, we are seeking dialog with experts, opinion leaders, but also regular citizens. In our web special, we are offering information and expert interviews and during our events, we invite discussion. Furthermore, we are also engaged in numerous other initiatives and through other activities.

In order to ensure everyone can participate in the knowledge and information society, it is important that they know how to use digital media safely, competently, and responsibly. Media literacy has become a key skill. Our aim is to make sure that people know how to competently and safely use new technologies regardless of their social background or personal abilities. With our numerous projects and initiatives in Germany and Europe, we target children and young people as well as adults and people of a more advanced age.

It remains part of our social responsibility to support people seeking refuge in Germany with cultural integration and inclusion in the employment market. Our goal is to open up career perspectives for a successful new start and motivate other employers to join in. We are convinced that companies as well as politics and civil society make an important contribution to the integration of refugees into our society.

We also apply our civil duty regionally, in particular in Bonn, where our headquarters is located. There, we support the local sport with Telekom Baskets and Baskets@school, and cultural events such as the Beethovenfest Bonn and the Jazzfest Bonn. On our numerous Social Days, we give our employees throughout Germany the opportunity to volunteer for local social projects or the environment.

GOALS	MEASURES	MEASURING SUCCESS
› Strengthen equal opportunities and media literacy for people of all ages › Provide broad access to digital technologies › Ensure better access to education for children and young people	› Media literacy projects › Educational projects › Engagement for refugees › Providing technical infrastructure	› Social Commitment KPI › Network coverage status

WHAT MAKES US A RELIABLE PARTNER IN THE DIGITAL WORLD

Digital technologies have penetrated German society like never before. This is shown in the D21 Digital Index 2017, which is promoted by Deutsche Telekom. However, the index also shows that with respect to the use of digital technologies, there are big differences between individual groups in society. Having access to modern information technologies is the basis for the ability to participate in the knowledge and information society. We are committed to ensuring that everyone, regardless of age, background or education, can participate in digital society. That is why we are continuing to rapidly expand our infrastructure and improve transmission speeds with new, secure technology. At the same time, we use our social initiatives to reduce potential obstacles to ICT use. To this end, we contribute our core expertise as an international ICT corporation. We develop our own offers and support partner initiatives with our expertise in this area. We have specific goals in this aspect, for ourselves as well as for our partners.

Our activities focus on the following:

Creating awareness

The only way to effectively shape the digitalization process is in collaboration with the worlds of business, politics and society. We have made a commitment to promoting social dialog and are active in collaborations and partnerships to facilitate this dialog. By signing the Charter of Digital Networking we emphasize our commitment.

If the digitalization process is to succeed, it is vital that people have faith in the confidentiality of their personal data. Data privacy and data security are our highest priority, which is why we support the conscious and safe handling of personal data, for example with our online guide sicherdigital.de.

The question of whether and how information and news on the Internet can be identified as "true" is also vital to ask. We have addressed this subject internally on our activity day "1001 truths - trust and opinion-forming online".

Supporting implementation
With our expertise, we support projects and initiatives that offer digital solutions for social challenges:

- We are a member of the association Deutschland sicher im Netz e. V. [DSiN] (Making Germany Safe on the Net), which serves as a central point of contact for IT security and data protection issues.
- In the context of DsiN, we support the Digital Neighborhoodproject, which trains people to be volunteer IT ambassadors.
- With the virtual reality game "Sea Hero Quest VR", we are making a contribution to dementia research.
- In the context of our corporate volunteering activities, our employees are participating in helping refugees to learn the German language online through the program eStart. Further, they spark children's interest for STEM subjects as reading tutors and mark wheelchair friendly locations on an online map wheelmap.org.

We are also working to further improve access to modern information technology. Within the scope of the Telekom@School initiative, we therefore offer general and vocational schools throughout Germany free Internet access up to 16 Mbit. Connections at higher speeds are available to schools at significantly reduced prices.

We also offer special rates to enable low-income customers and people with disabilities to make phone calls and surf the web at reasonable prices. More than one million customers in Germany take advantage of these special plans each year.

Strengthening skills
- "Teachtoday" is our initiative promoting safe, competent use of media. It supports children, young people and parents as well as teachers by offering hands-on tips and materials.
- The free children's magazine „Scroller" by the Teachtoday initiative encourages children to think about how they use media and learn to co-create the digital world.
- We strengthen competence in the STEM fields of science, technology, engineering, mathematics with a number of measures and programs. Many of these projects are supported by the Deutsche Telekom Stiftung foundation.
- Along with four other foundations, the Deutsche Telekom Foundation is a supporter of the "Education and Digitalization Forum" that intends to improve equality with digital media education.http://www.forumbd.de/
- With its "Yes, I can!" initiative, Deutsche Telekom Stiftung supports projects and organizations that help socially and educationally disadvantaged young people improve their personal and media skills.
- We are also involved in the Digital-Kompassproject, which offers volunteers a platform to help seniors navigate the Internet.
- Along with the Bundesarbeitsgemeinschaft der Senioren-Organisationen (BAGSO, German Association of Senior Citizens' Organizations), we support the media literacy of older people and also support the "Golden Internet Award" for competent internet users age 60 and up. In this context, Deutsche Telekom awarded the special prize "Letting ideas grow" in 2017 to a special project that is now being supported in its implementation.

RAISING AWARENESS

We want to be a reliable partner in the digitalized world. This is why we work to raise awareness of the opportunities and challenges that digitalization brings and encourage public dialog, for example, by fostering the Charter of Digital Networking.

"1001 TRUTHS – TRUST AND OPINION FORMING ONLINE" ACTIVITY DAY

The Internet makes it possible to distribute information directly and unfiltered. Serious news is more and more often mixed with opinions or "fake news". And in social networks, insults and hate messages can be found more and more often. But how can fake news be identified? And what can we do about personal attacks and insults on the Internet? More than 2000 of our employees discussed these and other questions in July 2017 during the "1001 Truths - trust and opinion forming online" activity day in Bonn.

Internal and external experts were on hand to answer questions, from Barack Obama's election campaign manager to the founder of "Hate helps", a Facebook group that turns hate messages into donations. In numerous presentations and personal talks, the experts provided information about the impact of fake news and ways of identifying it. Furthermore, our employees were able to participate in discussion rounds with internal and external experts, found out how the police use their social media channels or how they can react to cyberbullying, and learned more about the darknet in our Cyber Defense Center.

SAFETY FIRST: OUR COMMITMENT TO SECURE HANDLING OF DATA

Deutsche Telekom continuously works on providing transparent information on data protection for Internet users and raising the users' awareness of the necessity to handle data securely. The sicherdigital.de advice portal, for example, provides information on online risks and protective measures. Our Teachtoday initiative and our engagement in "Making Germany safe on the net" are our commitment to more secure and competent media usage.

BUILDING SKILLS

We want to enable people to participate in the knowledge and information society and to benefit from the opportunities of digitalization. It is not just technical access to the Internet that is crucial for this, but also that people know how to use digital medial safely, competently and responsibly. For this reason, we teach specific target groups about opportunities and risks and are committed to improving their digital skills. All such initiatives in Germany, including Teachtoday, will be presented on our website www.medienabersicher.de. We relaunched the website in 2017 and are successively expanding it. Our activities in Germany in the area of youth protection are presented on a page dedicated to the protection of young people, which was re-designed in 2017 and is part of our corporate website. This is how we are complying with the transparency requirements of our international voluntary commitments such as the ICT Coalition or the Alliance to Better Protect Minors Online, which aim to create better online environments for children and young people. Deutsche Telekom Stiftung's purpose is promoting digital skills and thus supports projects and programs in that area.

TEACHTODAY – AN INITIATIVE FOR SAFE, COMPETENT MEDIA US

Teachtoday(www.teachtoday.de) supports children, young people, parents and grandparents as well as teachers by offering hands-on tips and material about safe and competent media usage.. Among other things, Teachtoday has developed a media obstacle course that is a fun way of learning about safe media use.

All information are available in German, English, Croatian, German, Montenegran, Polish, Romanian, and Hungarian. And on YouTube, Teachtoday can be enjoyed with its own channel, which provides short, catchy videos about safe, competent Internet use, data protection and the issue of being authentic on the Internet.

Student projects award at "Summit for Kids"

At this year's event of Teachtoday "Summit for Kids" in November 2017, the six finalist teams of the competition "Medien, abersicher" (Media, of course) were in the focal point. They had previously qualified for the finale in a public online vote and then carried out a project under the heading "Do the media influence opinion?" The media scouts of the comprehensive school Heinrich-Heine-Gesamtschule in Duisburg landed first place with a project that addressed the structure, effects and dangers of chain letters. Media scouts are students who contribute to media competence among their fellow students. The children from Duisburg designed their own chain letter experiment in order to educate their fellow students on the subject.

Partner events: Touring the country to promote safe online behavior

With their own event day at the Haus der Geschichte in Bonn (German History Museum), Teachtoday 2017 participated again in the Safer Internet Day. This time, the event took place under the motto "Be the change: unite for a better internet". In various workshops, more than 60 school kids learned how to use digital media safely and to form their own opinions and answers to problems. The workshops dealt with important aspects such as safety, data protection, duration of cell phone use or cyberbullying. All participants also went through the Teachtoday media obstacle course.

Safe online media usage was also the subject of the event day supported by Teachtoday for the pilot project FSJdigital of the German Red Cross. More than 200 children participated in this event in March of 2017 in Halle (Saale). The young schoolchildren had fun exploring safe media use at four stations of the Teachtoday media obstacle course. Among other things, the children learned how to create a strong password and how to protect their personal data. All stations were monitored by second year FSJdigital volunteers. In order to prepare the volunteers for the day, they were given special coaching by Teachtoday employees.Moreover, Teachtoday was present at the German Youth Conference "Media 2017" in Rostock, where over 210 media scouts from all over Germany got together. Teachtoday was at the event with three different product options to show the media scouts how they can support elementary school students in the safe, competent use of digital media.

Award-winning initiative

The Teachtoday initiative received a number of awards in 2017 once again. As in the previous year, Teachtoday received three Comenius EduMedia Seals presented by the scientific association Gesellschaft für Pädagogik und Information (GPI). The entire initiative was recognized in the "Didactic Multimedia Products" category, the obstacle course in the "Competence-Building Computer Games" category, and the Scroller magazine in the "General Multimedia Products" category.

CONNECTED KIDS PROJECT IN AUSTRIA

Digital literacy is becoming a basic skill required for participating in any aspect of society. T-Mobile Austria wants to use its Connected Kids project to raise awareness among students, parents and teachers about the many different ways of making use of mobile Internet for learning. The company also wants to advance the use of digital media in schools. Since its launch in 2013, almost 10,000 students in some 400 participating classes and about 500 teachers have already had the chance to explore digital learning in a connected classroom. The topic of this year's “Connected Kids” event was “The digital school is more than

0 and 1". One of the key themes was the profound change that the digitization of school books will bring in the future, as it offers individualized learning experiences. The overall aim of the annual event is to introduce teachers, parents and employees to new learning formats that correspond with the current transformation of society towards digitalization, automatization, and interconnectedness.Educational and technical support is provided by T-Mobile Austria to make sure students get to experience all the advantages of mobile communication in teaching.

The Connected Kids blog is an important tool to make the experience of using digital media in schools and families part of a connected classroom available to the general public.

Long-term project goals include inspiring students to pass on what they learn to people outside traditional educational institutions.

GETTING A HEAD START WITH DIGITAL TECHNOLOGIES: OUR CHILDREN'S MAGAZINE SCROLLER

The Teachtoday initiative's media magazine Scroller was published twice in 2017. The magazine targets children between the ages of nine and twelve and provides parents and teachers with information in special supplements. It encourages children to think about how they use media and learn to co-create the digital world. Scroller is available online and as a free print version which is read by14,000 subscribers. The scroller.de portal is available in German and English.

Deutsche Telekom has provided the initiative Teachtoday 2017 with free outdoor advertising space. There, Scroller was advertised in a national billboard campaign for three months at 4,300 locations with an attention-grabbing motif.

Scroller was also once again recommended by StiftungLesen 2017, the German Reading Foundation, to promote safe, competent media use. Furthermore, Scroller won the "German Design Award 2018" in the "Excellent Communications Design Editorial" category.

SHAPING EDUCATION – THE DEUTSCHE TELEKOM STIFTUNG FOUNDATION

The Deutsche Telekom Foundation is engaged in good education in the digital world and is focused on the subjects of science, technology, engineering and math (STEM). The foundation began combining its activities under the categories of "education drivers," "education opportunities," "education innovations" and "education dialog" in July 2016. Projects such as the "Junior Engineering Academy" are examples of the foundation's successful work. Since January of 2017, the "Yes I can!" initiative has officially been integrated into Deutsche Telekom Stiftung, where it is one of the projects in the "Education Opportunities" action area.

Forum Bildung Digitalisierung

Deutsche Telekom Stiftung launched the „Forum Bildung Digitalisierung" education and digitalization forum together with four other German foundations in 2016. Since September of 2017, two additional foundations have joined forces with Deutsche Telekom Stiftung. All the foundations involved in the initiative are convinced that digital media can help improve the education system, thereby improving participation and equal opportunity. The three core topics of the initiative are "personalized learning," "developing skills," and "shaping change." When it comes to personalized learning, digital media can be used to give different target groups access to different learning approaches, including people with disabilities, particularly talented people and refugees. The goal of the second core topic is to convey the media skills necessary for living an independent life. "Shaping change" focuses on developing an educational concept for using digital media at educational institutions and within the education system.

The Forum also looks to engage in dialog with different participants in the educational sector and to develop new approaches to education. Experts from the worlds of science and education collaborate at conferences, in networks and at development workshops to find answers to the big questions and challenges involved in the digital transformation of educational institutions. The schulentwicklung.digital workshop focuses on changing the school and learning culture through the use of digital media. 38 schools that are already successfully using digital media in the classroom are participating in the workshop.

The STEM reading mentors
In collaboration with the German Reading Foundation, Deutsche Telekom Stiftung is looking for volunteer reading mentors to get children from the ages of 3 to 10 excited about STEM content. A total of 1,450 reading mentors have already signed up to the network, including six mentors in Madrid and Málaga. The reading mentors receive training in both classroom and online formats. They are then able to work with children at day-care centers and elementary schools. At the end of 2017, Deutsche Telekom Stiftung and the German Reading Foundation were able to offer around 100 media and action tips in nine languages. In 2017, there were STEM reading events in Germany, Austria, Romania, Spain and the USA.

GestaltBar – the digital workshop
Young people need to learn how to skillfully and creatively use digital tools so they can actively shape their lives and have the opportunity to work in a future-oriented profession. With its "GestaltBar – the digital workshop" project, Deutsche Telekom particularly targets students at lower-level secondary schools. The goal is to use a hands-on approach to introduce young people to digital technology and give them some insight into the different technical professions. Courses include topics like robotics, app development and 3D printing. The project is initially being conducted in four pilot locations – Bonn, Berlin, Hamburg and Cologne.

Calliope Mini – a mini-computer for young schoolchildren
The Calliope Mini mini-computer helps young schoolchildren learn how to program a computer. In 2017, Calliope gGmbH provided pilot schools in the states of Saarland and North Rhine-Westphalia with mini-computers. The Deutsche Telekom Stiftung foundation supports the project by developing and testing learning materials and course concepts. Ideas for the creative use of digital technology are currently being worked on at six universities within the scope of the "Elementary school digital learning" project.

Junior Engineer Academy
The Junior Engineer Academygets secondary-level students (grade eight and higher) excited about technical professions and careers in engineering. The Junior Engineer Academy is offered as an elective at participating schools for two years and conducted in collaboration with universities, scientific institutes and companies. The project was implemented for the first time in 2005 and gives students the opportunity to put the knowledge they learn in the classroom into practice. Since the beginning of the project, the school network has been growing steadily. In 2017, nine new Junior Engineer Academies joined the network, which means that there are already 88 schools in Germany that offer an academy. In 2017, for example, students from secondary schools in Leipzig were able to research interesting telecommunications projects the Leipzig University of Applied Sciences (HfTL). One group of students developed a cost-efficient robot that can be used in IT classes at school.

For the school year 2018/2019, Deutsche Telekom Stiftung is inviting applications for new junior engineering academies across Germany for the last time. Schools that would like to integrate the teaching model on a long-term basis into their teaching schedule can submit an application to Deutsche Telekom Stiftung along with their concepts. Deutsche Telekom Stiftung will provide the winning schools with seed funding of up to 10,000 euros to enable them to set up a Junior Engineer Academy. Participants are encouraged to meet regularly at annual JIA conferences to share their experiences.

FundaMINT
FundaMINT is Deutsche Telekom Stiftung's grant program for student teachers in STEM subjects. It helps student teachers get ready for their future career. Up to 25 grants are awarded every year for a period of four semesters each. The program was expanded in collaboration with the PädagogischerAustauschdienst (PAD), a department of the Standing Conference of the Ministers of Education and Cultural Affairs, and the Central Agency for German Schools Abroad. Grant recipients now have the opportunity to work at schools in central, eastern and southern Europe, conduct student projects and participate in preparatory and post-project seminars.

STEM Didactics Fellowship program
In 2017, Deutsche Telekom Stiftung invited applications for the STEM Didactics Fellowship program for the second time. Up to nine fellowships are granted each year to young researchers and scientists in the fields of mathematics, physics, chemistry, biology, computer science, technology and science education. The young fellows can attend seminars and workshops on topics such as job negotiations and supervising doctoral candidates and are involved in the Deutsche Telekom Stiftung network.

"Yes, I can!" initiative: support for 82 new digital competence projects
With the "Yes, I can!" initiative, Deutsche Telekom Stiftung teaches young people key skills for an independent and confident life in the digital world. In 2017, 82 open youth work projects fostering digital skills were funded through the initiative. The overall funding amount was once again around 600,000 Euro in 2017.

The key aim of the initiative is to empower children and young people and facilitate their participation in social development through skills building. In 2017, the project focuses on the development of media and digital skills. The age bracket for the target group was slightly expanded and is now between 9 and 16 years. More than 1,200 projects throughout Germany have been funded by the "Yes, I can!" initiative with a total of more than 6 million euros since the initiative was launched seven years ago.

PROMOTING STEM EDUCATION IN GERMAN

As a future-minded telecommunications and technology company, we depend on well-qualified talent, in particular in the STEM areas (science, technology, engineering, math). For this reason, we do a lot to introduce young people to these subjects, to get them excited about them and to improve education in the STEM subjects. It is particularly important to us to increase the ratio of women in STEM education. We are convinced that diversity helps us remain competitive around the world with good ideas and outstanding products and consolidate our position as an attractive employer. However, getting young women excited about an education in technology remains difficult. In our technical cooperative study programs we were able to increase the ratio of women from eleven percent in 2010 to 18 percent by the end of 2017 - but we don't consider this to be enough, by far.

Women's STEM Award International
With the Women's STEM Award, we hope to increase the attractiveness of STEM subjects and encourage women to choose careers in these areas. The prize is awarded annually in collaboration with the "audimax" student magazine and the "MINT Zukunftschaffen" (Creating a STEM future) initiative. It goes to thesis papers written by female graduates that focus on one of the following key growth areas: Internet of Things, artificial intelligence, cyber security or networks of the future.
In 2017/18 female graduates from around the world could apply as well. 30 international thesis papers, for example from Finland, the UK, India, Italy, the Netherlands, Austria, Romania, Russia and the USA were submitted. The winners will be chosen on June 21, 2018 in Bonn.

RoboNight in Saarland
During the RoboNights at the University of Applied Sciences (HTW) in Saarbrücken students are introduced to technical subjects in a fun way. At the RoboNight in November 2017, Deutsche Telekom was not only present as a sponsor, but also had a stand presenting future topics such as AR (Augmented Reality) and VR (Virtual Reality). The participating student teams were given tasks in the context of a competition and had to solve them with their robots. The winning team got to enjoy a robot kit and an invitation to the Telekom Design Gallery in Bonn. There, they could see for themselves what will be possible with robots in the future, in virtual reality and in the connected home.

STEM projects of Deutsche Telekom Stiftung
Deutsche Telekom Stiftung sponsors STEM education with a number of projects, among them the STEM reading mentors, "GestaltBar – the digital workshop" for students at lower-level secondary schools, the mini-computer "Calliope Mini" for primary schools, the Junior Engineering Academy for secondary-level students (grade eight and higher), Funda-MINT, a grant program for student teachers. Every year, the foundation invites applications for the STEM Didactics Fellowship program from young scientists.

EDUCATIONAL STEM ACTIVITIES IN CROATIA

Hrvatski Telekom is a technology leader and it has identified developments in the labor market, in the economy and in the academic community. The company has launched a STEM program that raises the popularity of STEM occupations among university students, with elementary and high school students, and also among our employees.

Hrvatski Telekomrecognizes the importance of fostering the interest of young people in science, technology, engineering and math (STEM). In 2017, we therefore continued to focus our activities on strengthening this interest.

In 2017, the competition for funding entitled “Together we are Stronger” (Zajedno smo jači) concentrated on projects aimed at the education of school and university students, educators, and on socially responsible innovations. The winner in the category of Youth Education was the "HT Campus" project developed by the Astronomical Society Višnjan. The monetary prize in the category Teacher/Professor education was awarded to the Institute for Youth Development and Innovation for the project entitled "Advanced Internet of Things (IoT) Technologies in Croatian Schools". The project developed by the Zagreb-based Faculty of Mechanical Engineering and Naval Architecture of the University of Zagreb entitled "The First Croatian Hydrogen Refueling Station" was declared the best in the category of Innovations.

HT STEM HUB
The launch of the HT STEM HUB incubator in 2016 was directed toward fostering the development of skills in science, technology, engineering and math. The intention is to create an academic and economic community of young experts, enabling them to realize their professional ambitions in Croatia using the most advanced technology with secured resources. The STEM program of Hrvatski Telekom facilitates inclusion in international projects that are realized within the Deutsche Telekom Group inside Croatia.

Hrvatski Telekom was the first organization to bring together several individual STEM initiatives. This has involved integrating a number of activities to introduce children to interdisciplinary knowledge such as robotics and astronomy. We cooperate with STEM faculties and their students come to us for practice and mentoring. They then have an opportunity to earn a scholarship and excellent associated job opportunities. The students selected for the Faculty of Electrical Engineering receive a monthly scholarship of HRK 3,000.

Collaboration with student associations enables us to participate in competitions relating to the design of business cases, in career fairs, and frequent visits by our specialists to faculties imparting specific practical knowledge to students.

A machine learning workshop held during the year for students of the Faculty of Electrical Engineering and the Faculty of Science was also very successful, and the participants gave favorable feedback.

HACK IT!
We joined forces with hub:raum – Deutsche Telekom’s incubator – to organize the “HACK IT!” hackathon. The hackathon is part of our broader strategy to enhance STEM activities in Croatia. Ten teams competed to develop the best solution **in the field of immersive** within the space of 24 hours. The main prize was for HRK 30,000 (approx. EUR 4,000). Out of 125 applications submitted from across the region, the 10 best teams have been selected to compete in offering the best and most comprehensive solution for future communication. Virtual and augmented reality, holograms, and artificial intelligence will be included in our future communication

The winning team “**Tartle”** presented an interactive fairy tale for young children. The solution uses extended reality to communicate with children on smartphones. It "listens" and creates virtual objects and characters to the keywords in the environment. The team gets access to hub:raum programs.

REFUGEE AID: INTEGRATION INTO WORK, INTEGRATION INTO SOCIETY

A total of 340 refugees were working at Deutsche Telekom in 2017 – primarily as apprentices, interns or as part of the "Internship PLUS direct entry" pilot initiative

Deutsche Telekom’s commitment to working with refugees started with a first-aid task force in 2015, which provided, for example, free Wi-Fi in refugee reception centers and properties to be used as refugee housing. In addition, employees were assigned to the Federal Office for Migration and Refugees, and employees involved in volunteer refugee work received support.

In 2016, the first-aid project developed into the current "Deutsche Telekom helps refugees" project. By now, the focus is on integration of refugees into the labor market. To this end, we offer internships – the first step in getting a foothold in the German labor market. In 2017 alone, there were 270 new job placements in the various programs. Up to 100 training positions, entry-level training schemes and cooperative Bachelor's and Master's programs were offered. We introduced recruitment days for the intern selection process, which are more about getting to know each other than about perfect prior experience and certificates. Six recruitment days were held in 2017 at different locations, with the majority of the more than 100 internships available being awarded on those days. Through recruiting measures, collaboration with the
Federal Employment Agency, communication via social media, volunteer workers and refugees who already work for the company, we were able to increase the number of applications and increase the ratio of applicants to job offers from roughly 2:1 to 5:1.

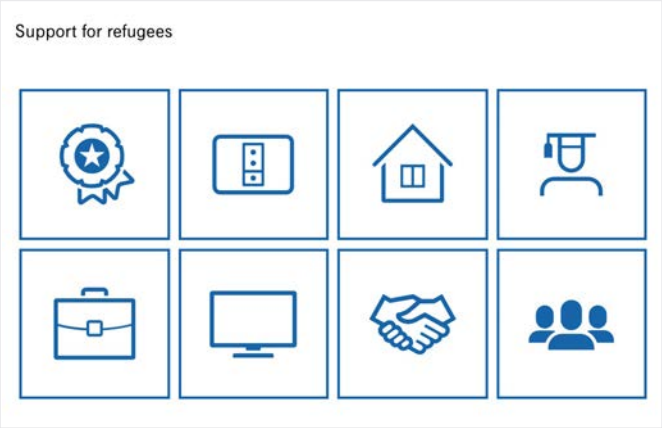
Internship PLUS direct entry = integration into the working world
The "Internship PLUS direct entry" pilot initiative, a cooperation with the Federal Employment Agency, the Deutsche Post DHL Group and Henkel, also started in 2017. A six month orientation phase is followed by a two-year employment. The advantage is that in addition to work, the refugees will also have enough time to improve their language skills and to find their way step by step into the new job assignment. Overall, we have assigned 38 relevant positions at Deutsche Telekom. Four of the new employees on this program are supporting customer service with their Arabic language skills as part of the "Telekom hilft!" (Telekom helps!) team by answering questions through the ArabicTwitter hotline that was established in this context.

> **DEUTSCHE TELEKOM'S EXPERIENCE WITH THE REFUGEE PROJECT HAS BEEN OVERWHELMINGLY POSITIVE. WITH THIS PROGRAM, WE AIM TO GIVE REFUGEES PROFESSIONAL PROSPECTS THAT WILL SIGNIFICANTLY IMPROVE THEIR OPPORTUNITIES IN THE GERMAN JOB MARKET. I AM ESPECIALLY PLEASED WITH THE POSITIVE PULL EFFECT: THE MORE REFUGEES WE EMPLOY, THE MORE INQUIRIES WE GET FROM TEAMS WANTING TO INTEGRATE ONE OR MORE REFUGEES.**
>
> Christian P. Illek, Chief Human Resources Officer at Deutsche Telekom

Grants create opportunities
In 2016, just under 20 refugees took up studies at Deutsche Telekom's own University of Applied Sciences in Leipzig and obtained grants from Deutsche Telekom. Moreover, we support the academic education of people who took refuge in Germany through the Welcome grant program from Deutsche Universitätsstiftung. The program offers refugee students in Germany one-on-one counseling with a lecturer from their field of study who lives near their university.

Information about Germany: The Handbook Germany
Under www.handbookgermany.de – the further development of our refugee portal started in 2015, in cooperation with the Federal Chancellor's office and the New German Media Professionals – refugees find information regarding life, learning and working in Germany. The information is not only presented in German, but also in other languages such as Arabic, English and Persian. Deutsche Telekom supports the editing team as a technology partner. Handbook Germany was recognized at the Film Festival Cologne by the "MEDIA & MIGRATION NRW 2017" project in the category "Best Project of an Initiative/Institution".

For its engagement in the support of millions of Syrian refugees, the GSM Association recognized Deutsche Telekom furthermore with the Glomo Award 2017 in the category "Outstanding Contribution to the Mobile Industry".



Awards
Winners, e.g. of the Glomo Awards 2017 in the category "Outstanding Contribution to the Mobile Industry"
Handbook Germany: Winner of the MEDIA & MIGRATION NRW 2017 award in the category "Best Project of an Initiative/Institution" at the Film Festival Cologne

Wi-Fi provision
By the end of 2017, 56 free Wi-Fi hotspots for refugees in refugee centers (figure decreased as expected as some refugee centers were closed)

Properties
35 Deutsche Telekom buildings provided for use by the Federal Office for Migration and Refugees

Placement in training
Offer of up to 100 training places and scholarships, allocation of places in dual Bachelor's and Master's degree programmes

"Internship PLUS direct entry" initiative
Two-year employment of refugees following a six-month orientation phase. Pilot initiative initiated in cooperation with Deutsche Post DHL Group, Henkel and the German Federal Employment Agency.

Refugee portal
Technology partnership for the "Handbook Germany" refugee portal containing information on the asylum process and life and work in Germany (re-launch on February 3, 2017)

Recruiting
Support for the Federal Office for Migration and Refugees provided by over 500 civil servants employed at Deutsche Telekom.

Recruiting
Support for the Federal Office for Migration and Refugees provided by over 500 civil servants employed at Deutsche Telekom.
Involvement of DTAG employees
DTAG employees involved in volunteer refugee work, e.g. the eStart program of cooperation partner Volunteer Vision, received support As of December 2017, 63 Deutsche Telekom employees supported one refugee each as language tutors.

"ALL FOR ONE WORLD - ONE WORLD FOR ALL": SCHOOL MEETS DEVELOPMENT POLICY

In 2017/2018, we supported the school competition "All for one world - one world for all" as an industry partner. The competition aims at supporting the teaching of global development in classes for all ages and raising the schoolchildren's awareness of questions of international development. The competition calls on children and young people to submit texts, photos, videos, art work, plays or music, posters or even digital work. "All for one world - one world for all" is an initiative carried out by Engagement Global, under the auspices of the Federal President and on behalf of the Federal Ministry for Economic Cooperation and Development.

ANS BOTHA LEARNERSHIP IN SOUTH AFRICA

T-SystemsSouth Africa, digital transformation specialist and technology partner to Olympian and400m World Record holder – Wayde van Niekerk, is putting its weight behind sustainable job creation for young people living with disabilities in South Africa through the Anna Botha Learnership program. This program, which comes as part ofT-System's ongoing Nation Building and CSI initiative, is named in honor of Anna "Tannie Ans" Botha, Wayde's coach and mentor.

T-Systemshas launched the Anna Botha Learnership Program in conjunction with the Wayde Dreamer Foundation, a collaborative initiative betweenT-Systemsand Wayde van Niekerk which seeks to uplift the youth of South Africa. The program is aimed specifically at young people living with disabilities and learning difficulties. It underpins Botha's support for the Foundation's drive to give something back to those who don't often get the opportunity to better their disabilities. Eleven candidates are accepted into the program as part of the initial trial period. Each candidate will graduate with a NQF4qualification in Information and Communication Technology Literacy and their A+ certification, which will enable them to find suitable employment within the IT field.

The students will undergo full training and certification examinations and will emerge from the process with a qualification which will enable them to find work in any IT help desk call center or as a field technician, among other potential possibilities. Finding employment is particularly challenging for individuals living with disabilities not because they are incapable, but because they are often denied the opportunities that are made available to their able-bodied counterparts.

ENCOURAGING IMPLEMENTATION

We want to motivate people to find creative digital solutions to social challenges. To do this, we provide tangible support and make it easier for them to realize their ideas. Our efforts include, for example, our involvement with the "Deutschland sicherimNetz" association and our collaboration with the German National Association of Senior Citizen's Organisations (BAGSO) to sponsor media literacy projects for seniors. Furthermore, we support the development of innovative solutions, such as new apps, and we develop our own sustainable products and services. We want to be a reliable partner in the era of digitalization, which is why we closely evaluate all of the feedback we receive. Our stakeholder dialog gives stakeholders the opportunity to rate sustainability topics according to their importance and assess our performance in the different areas.

PARTNERING WITH "DEUTSCHLAND SICHER IM NETZ" AND BAGSO

The Deutschland sicher imNetz e.V. (DsiN) association has served as a central point of contact for consumers and small businesses interested in the topics of IT security and data privacy for ten years now. Thomas Kremer, Deutsche Telekom Board Member for Data Privacy, Legal Affairs and Compliance, is chairman of the board at DsiN. As a member of the association, we are engaged in the youth competition myDigital-World and the workshop series IT-Sicherheit@Mittelstand. We also participate in the Digital Neighborhood project, which trains people to become volunteers sharing their IT knowledge with others. The Digital Neighborhood project was presented during the Community Volunteering Week in September 2017. At the Engagement Market, we presented self-study courses for training as a volunteer security and Internet trainer.

We promote media literacy among seniors in collaboration with the German National Association of Senior Citizen's Organisations, BAGSO. As a partner, we sponsored the Internet Gold Award 2017. Further partners are DsiN, Wegeaus der Einsamkeit e.V. (Wade), Google Germany and SAP. The award recognizes people over the age of 60 who use the Internet skillfully and help others to get started in the online world. The Minister of the Interior, Dr. Thomas de Maizière, acted as patron for the year 2017. In the context we support one of the winners of the special award "Let ideas grow" in implementing their project by providing advice and support in public relations and networking.

As an advisory board member we are also involved in the joint Digital-Kompass project conducted by BAGSO and DsiN. Digital-Kompass provides older people and those teaching them to navigate the Internet with tried and tested materials.

INNOVATIVE SOLUTIONS TO SOCIAL CHALLENGES

Technology can also be used to address social challenges. This is why we support the development of various digital solutions and education offers such as the German concussion test app GTE or the "MyShake" app, which turns smartphones into earthquake early warning systems. In the reporting year, we also supported the following projects:

Supporting dementia research in a fun way with the virtual reality game"Sea Hero Quest VR"

Based on the successful mobile game, Deutsche Telekom launched a virtual reality version of Sea Hero Quest in 2017. The aim is to bring scientists one step closer to the development of new methods for the early diagnosis of dementia. Dementia is a big medical challenge, with 47 million patients as of today. In 2050, there will be three times as many.

"Sea Hero Quest Mobile" generated data about the users' spatial navigation ability as the loss of this ability is one of the first symptoms of dementia. Based on this data, scientists were able to determine a worldwide benchmark of spatial navigation in healthy people. "Sea Hero Quest VR" now takes the next step: this innovative format will enable much more precise data on spatial navigation ability to be collected thanks to its three-dimensional display.

2 percent of all Samsung Gear owners worldwide already have downloaded and played the VR game. Overall, by today, over 3.8 million people have supported dementia research by playing Sea Hero Quest mobile & VR. The initiative shows how digitalization can influence and change scientific research in a positive way.

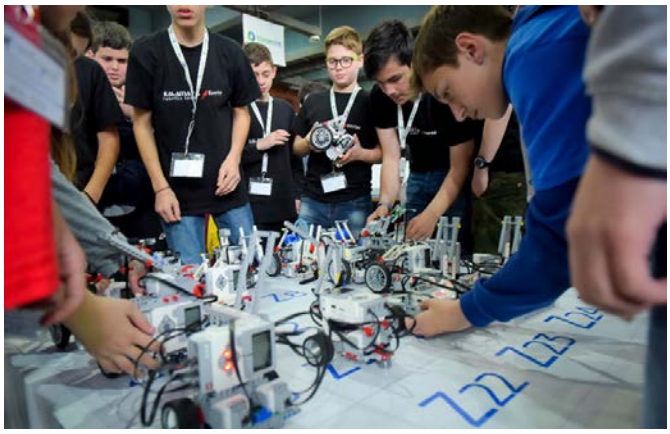
The VR game can be downloaded for free at the Oculus Store and in Google Daydream. The mobile game is furthermore available for download in the App Store as well as in Google Play.

Year of voluntary social/digital work: Under the pilot project "Year of voluntary social/digital work" (FSJ Digital) in Halle, Saxony-Anhalt, young people with an interest in media supported non-profit organizations, such as facilities for seniors and people with disabilities, with digital projects and the application of new media. Volunteers received media teaching support during their entire time on the program. The concept was tested at 25 facilities in Saxony-Anhalt. The program offered a wide spectrum of activities ranging from digital storytelling to creating accessible web content. The project was sponsored by the German Federal Ministry for Family Affairs, Senior Citizens, Women and Youth (BMFSFJ) and supported by Deutsche Telekom and NrEins.de AG. The project is being evaluated after completing its second year.

TELEKOM ALBANIA RECEIVES "CONTRIBUTION TO NATIONAL LEVEL" PRIZE

Telekom Albania was awarded the “Contribution to National Level” Prize by Partners Albania at a ceremony on 1 December. The award acknowledged Telekom’s major contributions supporting social, healthcare and environmental development in Albania. The contributions include stocking with books at the public libraries in the City of Tirana, donation of medical equipment to the “Shefqet Ndroqi” Hospital and the Neurology Service at the ”Mother Theresa” University Hospital Center, and the special contribution for research into the fight against dementia through the use of virtual reality.

This is the third award of its kind for Telekom Albania. In 2012, an award was bestowed on Telekom for its contribution to vulnerable communities and its long-term engagement in encouraging volunteering initiatives. In 2012, Telekom Albania received an accolade for its contribution to vulnerable groups requiring refurbishment the Retirees’ Home in the City of Fier.



EDUCATIONAL ROBOTICS IN GREECE

COSMOTE is a strategic partner of the non-profit organization for educational robotics, science and technology WRO Hellas and over the past three years the Group has been implementing a series of educational robotics initiatives with the aim of disseminating STEM subjects (science, technology, engineering and mathematics) in the Greek educational system. The following initiatives were launched in 2017:

- The Pan-Hellenic Educational Robotics Competition for primary, junior high and high school students was rolled out. More than 3,500 children participated in the competition and over 1,000 teachers were trained to enable the students’ teams to design and build a complete robotic model.

- The National WRO Competition was organized with more than 700 students participating from all over Greece. The winning teams took part in the World Robot Olympiad (WRO) held in Costa Rica in November 2017. Greek students spent an intensive preparation period from the announcement of the WRO in March 2017 until the finals in Costa Rica developing critical skills such as teamwork, problem-solving, engineering, and programming.

- The Bronze Medal and significant awards were bestowed on Greek teams at the World Robot Olympiad 2017. The SMARTBIRDS NEXT team from Patras won aBronze Medaland was ranked third worldwide (category: "Open Elementary"). This was the 2ndOlympic Award gained by Greece at the WRO. Other Greek teams ranked 7th and 15th in the “Regular Junior” category, 11th in the “Open Senior” category, and 16th in the WRO Football category worldwide.

ENGAGEMENT@TELEKOM

Our social commitment reflects our responsibility as a company acting in the political, social and business environments. To us, this also means encouraging the volunteer efforts of our employees, which contribute significantly to strengthening the sense of community. Their voluntary community work makes our employees ambassadors of our values. Volunteering is also very beneficial when it comes to internal HR development. It expands each person's horizon and has a positive impact on social skills and teamwork.

That is why we give our employees ample opportunity to volunteer, preferably with a focus on teaching media skills. This is just another way in which we help simplify and enrich the lives of those around us. Supporting our employees ongoing commitment and providing incentives for getting involved are two aspects covered by our corporate citizenship program, Engagement@telekom.

GOALS	MEASURES	MEASURING SUCCESS
› Using our core areas of expertise to benefit society › Supporting society as a trusted partner	› Corporate volunteering › Corporate giving › Donation Policy › Cooperation with non-profit organizations	› Social Commitment KPI › Reviewing compliance with our Donation Policy

TAKING RESPONSIBILITY IN OUR SOCIETY

We contribute to society in a number of ways with our corporate citizenship program, engagement@telekom. engagement@telekom is based on two pillars:

- Long-term partnerships with non-profit organizations
- Corporate volunteering (supporting our employees in their volunteering activities) and corporate giving (our donation activities)

In times of digital transformation, we want to be a trusted partner to society. We contribute our core expertise and the commitment of our employees to these efforts.

Our social commitment often takes the form of longstanding partnerships like our partnership with Nummer gegen Kummer (youth counseling line), the Telefonseelsorge crisis helpline, the Lebenshilfe aid organization and DKMS, the German Bone Marrow Donor Center. In addition, we promote media literacy among seniors in collaboration with the German National Association of Senior Citizen's Organisations (BAGSO). As a member of Deutschland sicherimNetz e.V. (DsiN), we support the association in its work for IT security and data privacy. Beyond this, we participate in the Civic Involvement Week sponsored by the National Network for Civil Society. We give our employees the opportunity to volunteer for social or, with our partners, for environmental projects, within the scope of our Social Days.

Through corporate volunteering measures, our employees have the opportunity to teach media skills. This can be done, for example, in cooperation with the Teachtoday initiative, where our employees are provided with teaching materials. Another way of getting involved is by joining Deutsche Telekom Foundation in its efforts to introduce children to the subject of programming using the mini-computer Calliope Mini. In addition, we encourage our employees to help integrate refugees into society and support them in learning German online under the e-Start project. Corporate volunteering is also an important component of our training and development activities. The volunteer efforts of our apprentices are given special recognition in our Group competition, Responsibility wins!

Our corporate giving concept includes donations for aid organizations worldwide, preferably those with which we have longstanding partnerships, and fast disaster relief. Our Group Donation Policy lays out the guidelines for these activities. For example, we have been collaborating with Germany's Relief Coalition, Aktion Deutschland Hilft, since 2003.

We collaborate closely across country borders when it comes to our involvement and share experiences and best practices. We use a set of KPIs to measure our success:

- The Social Commitment ESG KPI reflects our performance.
- The Community Investment ESG KPI reflects our social commitment in terms of financial, human, and material resources.
- The Beneficiaries ESG KPI measures the huge number of active contributors as well as the broad target group they reach.

- The Media Literacy ESG KPI highlights the high percentage of projects and activities promoting the competent handling of media. It is highly relevant to us as it correlates closely with our core business.

These KPIs are also the basis for our collaboration with partner organizations that help us to continuously control and evaluate our project measures and goals. These are monitored closely throughout the project year to enable us to adjust our target ranges or goals accordingly.

A study by Beyond Philantrophy and Goetzpartners shows that we are one of currently only five Dax 30 companies analyzing the benefits of their social commitment. According to this study, only two companies' donation activities are clearly related to their core business. In our case, this is the promotion of media skills.

In 2017, we assessed to what extent our Corporate Citizenship Program contributes to the UN's Sustainable Development Goals (SDGs). The contribution we make to the implementation of the individual SDGs is shown in an overview. Apart from this, our network expansion also contributes significantly to the SDGs as it is the basis for connecting people and helps, for example, to improve access to education.

INCENTIVES FOR DIVERSITY AND EQUAL OPPORTUNITY: THE DEUTSCHLANDSTIFTUNG INTEGRATION AND START-STIFTUNG FOUNDATIONS

We are convinced that cultural diversity enriches our society and offers opportunities for the innovative strength of our country's industry. This conviction is, for example, reflected in our strategic partnership with the German foundation for integration, Deutschlandstiftung Integration. The foundation supports young people with a migrant background, for example, by helping them to take their first steps into the world of work and offering the support of a large network. The patron of the foundation is German Chancellor Dr. Angela Merkel. In October 2017, Deutschlandstiftung started a cooperation with START-Stiftung. START-Stiftung has been supporting the integration of young migrants and immigrants for 15 years by issuing educational scholarships. The first joint events are planned for 2018.

Scholarship program "Go your own way"

The scholarship and mentor program "Go your own way" of the German Foundation for Integration places young people with migration backgrounds with mentors from politics, business, the media, culture and science. We have been a partner of the program since it was launched in 2012. Almost 600 mentors support the scholarship recipients in their professional and personal lives. So far, they have contributed over 25,000 hours of volunteer work to this program. The program also offers coaching, workshops on specific topics, internship platforms, and network events. In 2017, "Go your own way" celebrated its five-year anniversary and welcomed over 100 new scholarship recipients, so that the program now supports a total of about 700 young people.

DIGITAL LITERACY PARTNERSHIPS WITH SCHOOLS IN THE USA

In June of2017,T-Mobile USA launched a new program to provide students across the nation with equal access to learning for academic success and build the digital skill set that will help them compete in today's digital economy. This new program is called EmpowerED,and it's a special education offering that provides wireless devices and service to schools in low-income communities. In the first six months of operation, this program provided over13,000devices and lines of service to help schools and students succeed.

EmpowerED is a no-cost program for students and their families. All data plans includeT-Mobile's Web Guard CIPA compliant content filter that prevents access to adult content through three usage levels that include child, teen and young adult. All school systems participating in EmpowerED receive planning, implementation and deployment support.

CORPORATE VOLUNTEERING: OUR EMPLOYEES IN ACTION

Under our Corporate Volunteering program, employees volunteer for social action activities. We support this kind of social commitment through a variety of projects and events. This enables our employees to make valuable contributions to strengthening our society. At the same time, however, by volunteering on meaningful projects, they are learning new skills, which also has a positive effect on their everyday work. In 2017, we supported the following projects:

eStart – digital language coaching for refugees

Deutsche Telekom actively supports the e-Start program facilitated by the organization Volunteer Vision. At the end of December 2017, 63 Telekom employees were already helping refugees learn German via a video platform. They meet with their students in a video chat once a week for one hour. With the help of integrated learning materials, they jointly practice homework assignments from a German course.

„Responsibility wins!“

Our "Responsibility wins!" competition gives our apprentices and cooperative degree students the opportunity to get involved for the greater good and develop their skills beyond the scope of their professional training. In 2017, many of them once again participated in a variety of projects across Germany, experiencing social responsibility first hand. The best projects will be recognized at the end of April 2018 in an award ceremony.

STEM reading mentors

In collaboration with the German Reading Foundation, Deutsche Telekom Stiftung is looking for volunteer reading mentors to get children from the ages of 3 to 10 excited about books with STEM content. So far, 1,450 reading mentors have already registered with the network – including 73 Deutsche Telekom employees (as of December 2017).

Christmas campaign: Fulfilling children's wishes

In 2017, Deutsche Telekom employees once again volunteered to fulfill the Christmas wishes of children and adolescents who live in group homes. The children and young people write their name, age and wish on a paper star. Each star has a value of €30. Employees take one or several stars, buy the desired present, wrap it in Christmas gift wrap, and hand it in to the organizational team. Once all presents are gathered, they are handed over to the homes.

Donations for "Ein Herz für Kinder"

Almost 900 Deutsche Telekom employees supported the television show in aid of the "Ein Herz für Kinder" children's charity as volunteers at six locations in December of 2017. They volunteered at call centers collecting donations from TV viewers over the telephone. In total, over €17 million were donated. All the money collected goes to the "Ein Herz für Kinder" children's charity.

Fundraising for "Aktion Deutschland hilft"

At the 2017 Guiding Principles Day, Deutsche Telekom employees donated a total of 7,500 euros, which were given to Germany's Relief

Coalition, "Aktion Deutschland Hilft". The money goes towards projects by the member organizations "Help", "Handicap International" and "Care".

Moreover, Deutsche Telekom held a Twitter event with the hashtag #Magentaverbindet (magenta connects) on December 24, in which it donated a base amount of 3,000 euros to "Aktion Deutschland Hilft". For each additional tweet under this hashtag, Deutsche Telekom donated another euro. At the end of the day, the donation totaled 4,185 euros.

TELEKOM ALBANIA SUPPORTS ACT NOW

Telekom Albania supported the “Act Now” organization and their “Social Glow” project. The aim of this project is to tackle social problems such as unemployment, poverty, and the exploitation of vulnerable groups in the city of Tirana. The project was implemented by setting up a coffee bar employing people with disabilities, economic problems, and divorced women from rural areas. It serves as a social center where workshops, reading nights, and social events are held on a regular basis. The center features a separate space where children with special needs and performance talents can perform in front of an audience. It is open to anyone who needs a space to perform and a potential audience to attend.

HELP MEASURED IN KILOMETERS AT T-MOBILE POLAND

Help Measured in Kilometers is a nationwide campaign launched in2013and carried out byT-MobilePoland since then. It aims to support physically disabled children by providing prostheses and rehabilitation. All smartphone users who run, cycle, rollerblade, walk or take part in wheelchair sports are able to join the campaign. The kilometers covered are added together using the free Endomondo Sports Tracker app installed by all the participants on their smartphones.

The secret of the campaign’s success is a combination of three elements: new technologies, a passion for physical activity and a desire to help kids. Since the beginning of the campaign, we have been able to continuously increase the number of kilometers involved. From gathering 40 million kilometers in 2013, we went to collecting almost 140 million kilometers in 2016. In 2017, close to 1.4 million participants covered almost 140 million kilometers within 92 days, burning 6,670 million calories in the process.For the fifth time we have turned the kilometers gatheres into zlotys to help children in need. Another million zloty was donated to the TVN Foundation “You are not alone”.

DISASTER RESPONSE IN THE USA

2017’s hurricane season topped records on all fronts as Hurricanes Maria, Harvey and Irma did catastrophic damage to communities in Texas, Florida and Puerto Rico. To support customers and maximize network availability, T-Mobile USA activated extensive preparation, response, and fundraising efforts.

- **Hurricane Preparation**: Before any hurricane forecasted to make landfall in the US or its territories, T-Mobile sets up an engineering command center near the expected area of impact and deployed rapid-response teams to minimize potential interruptions to wireless service. In addition, T-Mobile’s Geo-Redundant Network Operation Centers (NOCs) closely managed network traffic and further coordinate any response to an event.
- **Free Texting & Calling: During the hurricanes and for weeks following,** T-Mobile offered customers in affected areas the ability to call or text anywhere in the US for free. Customers in affected areas who were not on the T-Mobile ONE plan were also given unlimited data (T-Mobile ONE customers always have unlimited data).
- **Text-based Fundraising**: T-Mobile promoted ‘Text to Give’ mobile phone fundraising to help those impacted by the hurricanes. To participate, any consumer could donate USD 10 to the American Red Cross for Hurricane disaster relief efforts by texting short codes to 90999. Several other nonprofit hurricane relief text-to-give options were also included.
- **Recovery Efforts**: Once recovery efforts began, T-Mobile deployed equipment, supplies and disaster experts to all affected areas in all three disasters. Emergency equipment included portable generators, fuel trucks, Cell On Wheels (COWs), Cells on Light Trucks (CoLTS), fuel and diesel trucks and other vehicles.
- **Puerto Rico Response**: Puerto Rico was especially hard hit by Hurricane Maria, and lacked the infrastructure and resources of the US mainland. Our immediate support to the island included a dozen cargo planes and multiple barges packed full of supplies and equipment, trucks, cells-on-wheels, cells-on-light-trucks and hundreds of portable generators. T-Mobile provided the Federal Aviation Administration a large generator to help keep the San Juan airport open allowing for the delivery of life-saving supplies. We sent hundreds of emergency and disaster relief experts specializing in the restoration of communications networks to the island.
- **Innovative Approaches to Service Restoration**: T-Mobile also used several innovative technology approaches to restore service. One of the solutions was Project Loon, an experimental system that our engineering experts worked on with the team at X, Alphabet’s Moonshot factory. This balloon-based LTE access allowed us to deliver more limited data and texting services to customers in hard to reach areas. Another example is our partnership with Vanu, which deployed several self-contained portable cellular network units that provide voice, data and text capabilities in some of the hardest hit areas.

CULTURAL AND SPORTS SPONSORSHIP

Culture and sports are a source of pleasure and inspiration for society. They create a sense of community and enable understanding across cultural and political borders. As an international corporation, we feel that sponsoring cultural activities and sports is another element of our corporate responsibility.

GOALS	MEASURES	MEASURING SUCCESS
› Broad access to culture › Promote competitive and popular sports	› Sponsorship Policy › Promoting school sports, recreational sports and inclusion projects › Supporting cultural offers	› Reviewing compliance with the Sponsorship Policy

GETTING INVOLVED IN CULTURE AND SPORTS

In Germany, we are one of the leading sponsors of culture and sports, and our national companies are also engaged in this area. In addition to providing funding, we support artists, athletes, event organizers and associations in their communication and marketing activities. Regional involvement at our locations also plays a key role.

Sponsoring music is a long-standing tradition at Deutsche Telekom and a vital element in our company's brand communication activities. It is our goal to give people access to cultural events, thus encouraging them to share thoughts and ideas. Our main sponsorship focus is placed on events like the Beethovenfest and the International Telekom Beethoven Competition in Bonn, which has been providing a stage for up-and-coming pianists from all over the world for twelve years.

We are a partner of Junges Theater Bonn and sponsor a number of projects, including a media education school project that is aimed at motivating young schoolchildren to learn about the new media through fun and creative activities.

As part of our sports sponsorship activities, we support both competitive and recreational sports. Our main focus is on soccer partnerships with the German Football Association, FC Bayern Munich, and other German major league soccer teams. As a Bonn-based company, we moreover support the Telekom Baskets Bonn. In addition, we sponsor athletes through non-profit organizations such as Deutsche Sporthilfe (a German sports aid foundation), Deutscher Behindertensportverband (National Paralympic Committee Germany) and DFB-Stiftung Sepp Herberger (the German Soccer Association's Sepp Herberger Foundation).

Furthermore, we also place emphasis on those aspects of sports that foster community life. The focus of our engagement is on recreational sports, school sports programs as well as athletes with disabilities. Our partnership with the Deutsche Sporthilfe foundation has been extended to 2020, with special emphasis on Paralympic sponsorship and athlete career transition.

GETTING EXCITED ABOUT SPORTS WITH THE TELEKOM BASKETS

We take responsibility for our immediate social environment, which is why we sponsor the Telekom Baskets in Bonn.

Ticket sweepstakes for the Telekom Baskets

Before the 2017/2018 season got underway, we launched our tenth Tix for Kids ticket sweepstakes. We raffled off two sets of tickets (2 x 30) for each home game. All schools in Bonn had the opportunity to participate in the raffle. Bonn-based businesses were invited to become ticket sponsors for social welfare institutions, school classes, club teams and back-to-work centers for disabled people. We participated in the sweepstakes and donated an additional 160 tickets to various organizations including the "Maria imWalde" children and youth center, and various refugee housing centers.

Baskets@school student training project

Deutsche Telekom's Baskets@school initiative makes it possible for students in 5th through 10th grade to have their sports idols visit their school. Children and young people experience what professional basketball training is like by participating in a training session that lasts for around 90 minutes. The Telekom Baskets pros teach them tips and tricks. Head team trainers offered a total of eight such training sessions from November 2017 through April 2018. The project strengthens team spirit and teaches students from the region more about basketball.

A highlight of the season was a visit by the Telekom Baskets to the Otto-Kühne School rowing club (RVPG). During joint rowing practice on the Rhine, the students showed off their talents to the six stars. In a following basketball unit, the Baskets pros showed off their skills in the court.

Baskets Primary School Challenge

In 2017, we started the Baskets Primary School Challenge together with the Telekom Baskets and in cooperation with the City of Bonn. This training project wants to get second and third graders excited about sports and awaken their athletic ambition. The students are given the opportunity to train with Telekom Baskets players – and to then compete with other primary schools in a challenge. Deutsche Telekom furthermore provides a free box with training equipment that the schools may keep after the end of the project. Interested primary school classes from Bonn and its surroundings may register online. The finale of the first challenge took place in January of 2018 at the Telekom Dome.

PROGRAMS FOR YOUNG SOCCER TALENT

"Stollenhelden" (Soccer Heroes), Deutsche Telekom's soccer program for future stars, had evolved from the ANSTOSS! soccer initiative. With the election of the Stollenhelden (Soccer Heroes) 2017, we have ended the project in January of 2018 after four years. We continue to support the development of new soccer talent through the "New Sports Experience" program.

New Sports Experience

We run the "New Sports Experience" development program in collaboration with the National Paralympic Committee Germany and the National Soccer Association's Sepp Herberger Foundation. The "blind soccer" training unit gives teams with players 12 years and older an opportunity to experience something new and to learn how to play blind soccer. In the "blind stadium experience" students with and without visual impairments attend a German national league soccer game together, following the action by only hearing the live commentary. This experience promotes camaraderie among young people.

SPORT IS GOOD CAMPAIGN IN ROMANIA

The "Biggest Sports Hour" 2017

During June and July 2017, Telekom Romania in partnership with SmartAtletic organized the 7th edition of the sports event "The Biggest Sports Hour" in Bucharest, Bra□ov, and Mamaia. The event was attended by more than 50,000 people from 21 cities in Romania. It featured around 35 fitness classes, coordinated by 118 instructors, and 18 sports such as: cycling, street workout, freewheel, table tennis, football, etc.

In addition, 3 medical stations were provided by BTL Romania. They carried out more than 500 ECG tests for the detection of sudden death syndrome, and medical aesthetic sessions. The Red Cross offered first aid and resuscitation courses for 100 children and adults, while the Leventer Foundation provided tests for skin cancer.

Last but not least, the Telekom Romania Foundation supported two charitable causes throughout the event: 40 families without income from Giurgiu County received non-perishable food and the Casa Speranței Hospice for children and adults with incurable diseases received financial donations gathered through the "Sport is good" cross, part of "The Biggest Hour of Sport" event in Bra□ov.

Telekom Romania supports the third edition of Brasov International Marathon

In May 2017, Telekom Romania organized the Brasov International Marathon as part of the "Sport Is Good" campaign. More than 2,600 national and international runners of all ages competed in the marathon (+26% more than in 2016).

- Over 100 runners from 21 foreign countries (+ approximately 100% compared with 2016)
- Approximately 300 volunteers in the organizing team
- Final accreditation from AIMS (Association of International Marathons), two years in advance
- Ranked 13th place in the top 20 best city sightseeing races in the world according to Culture Trip
- More than 100 runners from Telekom – 1st place for "The biggest running team"
- 4,500 euros raised by the Telekom Romania Foundation from registration fees to support therapy for children with incurable diseases
- Fundraising for a colleague in need of surgery: approximately 5,200 euros collected in a single week by 22 Telekom runners through a donation platform and by 1 Telekom employee offering photo sessions at the company.

CULTURAL SPONSORSHIPS: PROMOTING ACCESS TO ART

With the exhibition "Henry Moore.Vision Creation. Obsession", we would like to facilitate access to art for people from different social backgrounds and sponsor the art and media competence of children and adults. The exhibition took place from May 2017 to January 2018 at the Arp Museum Bahnhof Rolandseck in Remagen near Bonn. In cooperation with the museum's public outreach department, we offered a variety of workshops in which visitors were able to not only contemplate art, but to get creative themselves and improve their digital media skills with photo or video apps.

Moreover, Deutsche Telekom provided an allotment of 50 free tickets for charitable organizations and holders of the Bonn Card. The Bonn Card allows low-income citizens of Bonn to access certain services and reduced fees. For Bonn-based social institutions and organizations, Deutsche Telekom also held free photo rallies across the Arp Museum grounds. The end of the year-long exhibition was formed by the "Magic of Advent Weekend" that we held in cooperation with Junges Theater Bonn. In four acting taster workshops at the museum, participants had fun bringing Henry Moore sculptures to life.

A UNIQUE CONCERT EXPERIENCE: BEETHOVENFEST AND JAZZFEST

Beethovenfest Bonn: Deutsche Telekom presents inspiring concert evenings

In 2017, we were once again the main sponsor of the Beethovenfest in Bonn, which was inspired by the motto "The Distant Beloved" this time. We sponsored two fascinating concert evenings. On September 30, the Musiciens du Louvre orchestra, conducted by Sébastien Rouland, played works by Joseph Haydn, Hector Berlioz, Charles Gounod and Jacques Offenbach at the World Conference Center Bonn. Another concert evening was presented by Francesco Tristanoon September 16.

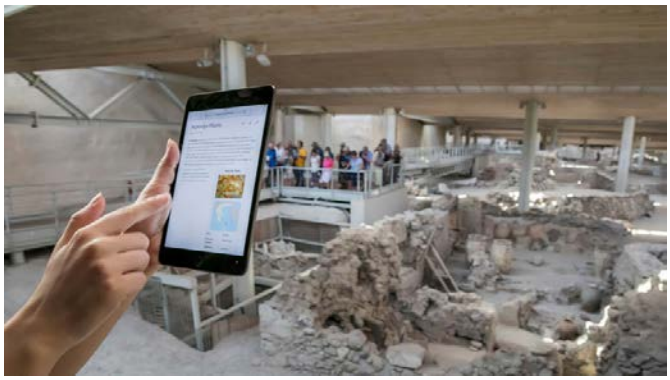
The pianist combines classical music with techno in his shows. The concert was organized by eight students within the scope of the student manager project of the Young Beethovenfest. The students handled financing and advertising and made sure the concert runs smoothly. Beethovenfest employees assisted the students in all of their responsibilities. 2017 was already the seventh time that Deutsche Telekom has sponsored this project.

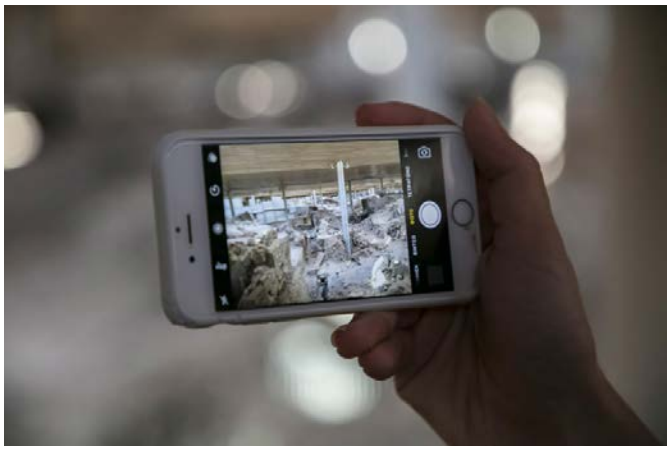
Moreover, during the period covered by this report, we held another International Telekom Beethoven Competition for pianists. The competition has been held every other year since 2005. We sponsor young professional pianists and offer them an international forum. We specifically expect of the participants that they imbue their performances with their own interpretations and ideas. The awards were given out in December 2017.

Jazzfest Bonn
We were also once again a main sponsor of last year's Jazzfest Bonn in May 2017, where we presented a double concert at the sold-out Telekom Forum on May 12. The audience greatly enjoyed the performances by actress Jasmin Tabatabai, accompanied by the David Klein Quartett, and by the jazz/rap group Jazzkantine.

FOSTERING CULTURE AND DIGITIZATION IN GREECE

Free WiFi Services at 20 Top Archaeological Sites and Museums in Greece
In cooperation with the Greek Ministry of Culture and Sport, COSMOTE has launched the provision of free WiFi at 20 archaeological sites and museums throughout Greece. By 2017, Wi-Fi access was already in place at the Acropolis, Delphi, Akrotiri on Santorini, the Knights' Palace and Archeology Museum on Rhodes, the Athens Byzantine Museum, Eleftherna Museum on Crete, and at the Delos museum and archeological site. The archeological sites at Knossos and Sounio, the Royal Tombs (Vergina), the National Archeological Museum, Ancient Olympia, the Archeological Museums at Heraklion and Thessaloniki, the Acropolis on Lindos, Ancient Epidaurus, the Acropolis of Mycenae, Spinaloga, the Museum of Byzantine Culture, ancient Dodoni, and ancient Corinth will be the next sites to go online. COSMOTE is investing more than € 2 million to harness the power of technology and promote Greek cultural heritage. The project includes the study, design, and development of wireless network infrastructures at selected locations by the Ministry of Culture and Sport, provision of the necessary equipment, operation and maintenance of the networks, and free wireless Wi-Fi internet for three years. Free WiFi provision will be completed in the course of 2018.





Contemporary Artistic Creation at the Onassis Foundation
The OTE Group supports the Onassis Foundation with the aim of promoting more than 120 productions in the field of culture. The focus here is on contemporary art. In 2017, COSMOTE focused on supporting the exhibition "Science Fiction: Travel to the Unknown". This included creations by modern artists inspired by the opportunities of science fiction in design, cinema, and literature. The exhibition also included concerts, educational programs, workshops and film screenings. At the same time, COSMOTE is supporting the upgrade for the application entitled "Soundscapes – Landscapes 2". This enables visitors to take part in a poetic journey of sound and image around the streets of the city using tablets and smartphones.

EMPLOYEES

We shape the digital world of work and offer our approximately 217,300 employees an environment that supports new forms of cooperation. We encourage independence, create development opportunities and offer systematic health management, all the while placing a high degree of importance on dialog, participation and fairness.

COURAGE TO TRY

Dear Readers,

The changes we have experienced in the onward march of the digital revolution have meant no less than a remapping of our world – bringing radical rupture to every area of our lives. These changes are opening up unimagined new opportunities. But we also need to ensure that people remain at front and center during this digital upheaval.

We at Deutsche Telekom are in the avant-garde of the digital revolution, pushing on change with our products and services, yet at the same time also keenly aware of the need to keep up the same pace in achieving our own transformation. That is why we are searching for ways to find the right balance in the changes happening in our company, and to take our employees on the journey with us. A positive attitude to change is fundamental, and that is why we are providing opportunities in the digital workplace and supporting co-workers by providing the right sort of environment. We are also establishing a new culture of knowledge and of learning from error that provides the freedom to keep up with the blistering pace of change.

In some places we need the courage to dare to try out the new. And that is why I urge you to “just go ahead and do it”! That is the reason we are creating new spaces for experimentation in which we can try out new possibilities – without organizational and operational pressures.

One of these spaces for experimentation is the 80/20 model. It offers the freedom to employees to dedicate 20 percent of their work time on projects not directly connected to their regular duties. In the management area too we are exploring new terrain; things that used to be run by command and control supervision often just do not work that way anymore. The growing complexity and volatility of the digitalization process is forcing us to abandon our tried-and-tested leadership models. In particular, the concept of “lifelong learning” is acquiring even greater weight as the digital revolution moves forward. And that is why we are developing digital tools that help put the fun into learning – including the use of gamification and virtual reality, for example. And we have already tried out both successfully.

Technological progress cannot be stopped. But it can be shaped to our needs. And the way digitization is reshaping our world will, as mentioned above, surely lead to social innovations – innovations that will especially affect our working lives. Aside from the examples I mention here, we have set out a few thoughts in a position paper on how we can prepare for the future of Deutsche Telekom right now.
I am convinced that flexibility is set to become the "new normal". Firmly embedded in a responsible corporate culture, it gives us the key to the successful digital transformation of work.

Christian P. Illek

Christian P. Illek, Member of the Deutsche Telekom Board of Management for Human Resources since April 2015

AGILE AND FLEXIBLE: PROMOTING NEW MANNERS OF COOPERATION

Our employees use their commitment, their expertise and their abilities to pave the way for a digital society. About 217,300 people in over 50 countries worldwide make a major contribution to our business success. As a responsible employer, we very much value dialog, cooperation and fairness. We give our employees the opportunity to realize their potential and to contribute their individual strengths and ideas within our Group. We use future-oriented methods and tools to support them on their road to the digital working world.

GOALS	MEASURES	MEASURING SUCCESS
› Employee relationships characterized by fairness and responsibility	› Fair remuneration and devices for performance assessment › Flexible working time models › Cooperation with employee representatives › Socially acceptable staff restructuring › Employee surveys and corresponding measures	› Reviewing implementation of our Employee Relations Policy › Assessing employee satisfaction › Reviewing compliance with current collective agreements and relevant Group and company policies

SHAPING CHANGE AT THE COMPANY

Digitalization is revolutionizing the way we work. Today, we are seeing new ways of cooperating and an increased degree of automation. Employees are expected to offer more flexibility, social competence, and personal responsibility. They also need to be life-long learners and be more self-directed. We have made it our goal to help our employees make these changes – and to help them not only manage change, but also take an active role in shaping it. Co-determination rights play a key role in this. Hence, we pursue dialog-oriented employee relations throughout the Group and engage in trust-based, constructive collaboration with employee representatives and unions.

Fair pay and benefits

We offer our employees competitive, performance-based pay oriented to the relevant national market. Our remuneration policies are structured to guarantee equal pay for men and women and do not discriminate. Executive compensation at Deutsche Telekom is based on our Group-wide Global Compensation Guideline. We also offer our employees additional benefits such as our company pension scheme. We regularly poll our employees' satisfaction with their remuneration with the employee survey and also conduct surveys on specific topics and in specific units. We have compiled a separate report in order to comply with the new legal requirements of the Act to Promote Transparency of Pay Structures. This is enclosed to the management report as an appendix.

Flexible working models

Having the chance to structure one's work according to one's own needs considerably improves work-life balance and helps prevent stress and the feeling of being overworked. That is why we actively promote flexible working time models. Our offer ranges from flexitime and part-time to lifetime work accounts. Since 2016 we have offered about 80,000 employees in Germany a so-called lifetime work account. This offer has been available to about 20,000 civil servants in Germany since mid-2017. This amounts to 90 percent of all employees in Germany. Lifetime work accounts give our employees the opportunity to finance future absences from work lasting longer than one month, which may be used for early retirement, a sabbatical or to support a period of part-time work. Executives have had this option since 2012. We set up 9,000 lifetime work accounts by the end of 2017. What's more, we created the prerequisite for establishing mobile working as a new way of working at our company when we concluded the sector-specific collective agreement on mobile working in 2016.

Socially responsible personnel restructuring

We must continually develop as a company in order to fulfill our customers' requirements. This also means quantitative and qualitative staff restructuring at some of our companies. The main objective is to structure these changes for our employees in a socially responsible manner. At the companies affected, for example, we decided to enter into collective agreements that rule out compulsory redundancies. Within the scope of this socially responsible staff restructuring, we employ alternative tools such as severance payments and phased retirement as well as training programs that help our employees prepare for new assignments.

Employee satisfaction and participation

We highly encourage a feedback culture throughout the Group and promote open dialog and constructive communication with our employees Our social network "You and Me" (YAM), the Group-wide network that has about 123,000 users, is an important tool for this. YAM provides not only comprehensive information but also a platform for our employees to engage in cross-hierarchical dialog and raise topics that are important to them for discussion within the Group. Our Board of Management also regularly uses YAM as a platform for direct dialog. Another key element of our feedback culture is our Group-wide employee survey. This is supplemented by pulse surveys, which give us a snapshot of the mood at the company twice a year. Our Group-wide ideas management activities are another key tool in encouraging employee contributions to the success of the company.

We have seen an increase in the number of employees participating in our Group-wide pulse surveys as well as our ideas management activities. In 2017, 71 percent of our employees took part in the pulse survey (previous year: 73 percent). Employee satisfaction remained high at 72 percent. Interest in ideas management is also very good; statistically, every eleventh employee submitted a new idea in 2017. We also offer

our employees opportunities to help shape our corporate social commitment within the scope of corporate volunteering initiatives.

We have set Group-wide standards for managing employee relations. These were formalized in our Guiding Principles, Leadership Principles and Employee Relations Policy. You can find additional information about respect for human rights at our Group in the Strategy chapter.

EMPLOYEE RELATIONS AT OUR NATIONAL COMPANIES

What progress have our national companies been making in implementing our Employee Relations Policy? We determine such progress using special reviews. Two to three national companies are subject to such a review each year. They use the results of the review to further improve their relations with employees. The results also help us conduct a Group-wide assessment of employer/employee relations and any human rights risks involved in our business activities.

In 2017 we conducted reviews at T-Systems Netherlands and IT Services Hungary, a subsidiary of T-Systems International. We publish the results on our website.

Extensive discussions with management and numerous employees of T-Systems Netherlands showed that all elements of the ER policy introduced in 2011 had been successfully implemented. The employees proved to be very satisfied with their employer and praised both cooperation within their team and with management. The respondents suggested additional measures regarding communication of the complaints procedure, the ER policy, and the Guiding Principles as part of the ER policy. For example, they recommended that these topics be communicated even more intensively at events such as the Guiding Principles Day.

At IT Services Hungary (ITSH), the key elements of the policy have been successfully integrated into day to day business, and employees are familiar with these elements. Management has also focused in particular on reconciling work and family life, among other things, due to the large amount of young employees. A Working from Home policy was introduced in 2014. During the 2017 review process, the respondents indicated they would like additional options for flexible working schedules, such as tandem or part-time work. In 2017 ITSH was selected by the global service company Aon as the company with the best employee program and the most dedicated employees in Hungary. This award is given to companies that are particularly attractive employers.

SOCIALLY RESPONSIBLE STAFF RESTRUCTURING CONTINUED

The transformation of our Group was a key issue in past years and will continue to be so in coming years. Against the backdrop of digitalization and the associated changes, we must secure our long-term viability and competitiveness. This process is connected to complex staff restructuring. We are creating new jobs in growth fields and are training qualified personnel to fill these positions. Other areas are the focus of restructuring activities involving workforce reduction. We make sure that all restructuring measures are implemented in a socially responsible way for our employees. In doing so, we try to support them in the best way possible on our way to the digitalized working world.

Integrated staff restructuring management introduced at Telekom Deutschland GmbH

Over the course of the upcoming changes, our goal is to provide even more professional assistance to employees during their professional reorientation phase. That is why integrated staff restructuring management was introduced in the Germany segment, which should be effective early on in the restructuring process. This means that in cases where tasks could be canceled or different skills could be required for certain positions, we want to take preemptive steps and consult with the affected colleagues and managers much earlier than we have in the past. During such consultation, various employment alternatives are devised together with the affected employees and their specific potential labor markets are ascertained. Added to this is comprehensive assistance with developing an individual job application approach and – if necessary – targeted planning and implementation of skills development measures.

Civil servanttransfer

Accompanying the above measures, Vivento, our internal service provider for Deutsche Telekom's staff restructuring measures in Germany, will continue to help civil servants transfer to positions in public service. About 450 civil servants employed at Deutsche Telekom opted for a permanent transfer to federal, state or local authorities in 2017. In 2017 the focus was primarily on transfers of civil servants to the Federal Employment Agency, branches and field offices of the Federal Office for Migration and Refugees and to the Federal Armed Forces. Employees were assisted in finding positions with federal, state and local administrative authorities.

New framework conditions for staff restructuring at T-Systems

Competition in the worldwide ICT market and the changes resulting from digitalization are creating major challenges for us. This necessitated a collective agreement for 2016 and 2017 that does not place any additional strain on T-Systems' competitiveness and supports staff restructuring measures. The collectively agreed upon moratorium on compulsory redundancies will last until December 31, 2018. As an employer, we continued to make significant investments in the necessary socially acceptable staff restructuring measures in 2017.T-Systems' goal is competent, employee-oriented change management that enables employees affected by staff restructuring to undergo professional reorientation and effective reintegration. Negotiations with employee representatives regarding framework regulations for the staff restructuring process took place at the end of 2016. The central works agreement on supporting and implementing staff restructuring at T-Systems International (CWA on Staff Restructuring 3.0) was revised in March 2017. It defines HR instruments as well as processes and procedures for carrying out compulsory staff-related measures. The Job Service & Placement (JSP) service launched in 2014 will continue to support affected employees in finding new jobs. The cooperation with JSP is set forth in T-Systems' Central Works Agreement on Change Management.

Transformation measures were necessary at the TC Division and IT Division in 2017. This change resulted in a moderate loss of jobs. The reconciliation of interests required for this were negotiated with the relevant department representatives. Here too, assistance with helping employees find new employment opportunities is important so as to ensure that the restructuring process remains socially responsible.

Thanks to JSP, T-Systems was able to find new career perspectives for 50 percent of the 188 affected employees.

JSP's success stories in past years were also noticed by other Group units. As a result, JSP took over advisory activities for 25 Telekom Training employees and has already found solutions for 75 percent of them. Since September 2017, JSP has additionally been supporting the internal staff restructuring process of the Europe Board department and has achieved initial success in advising both employees and managers.

Reorientation of Telekom Deutschland GmbH
Telekom Deutschland successfully completed its transformation program in 2017. The goal of the reorientation was to make the unit more competitive by changing its structure. To this end, Telekom Deutschland concentrated on processes and interfaces that directly affect customers. The transformation project consists of three large organizational key elements. First, a new service organization was created that includes most of the operational back office – customer service and technical service. Hence services for consumer, business and carrier customers now come from one source. Second, a new sales organization was created for business customers from the sales units of the business customer segment, while the sales organization for consumers was rebranded and expanded. Technical service units were integrated into Deutsche Telekom Technik so that network expansion would be managed entirely by this company. On July 1, 2017, about 20,000 colleagues moved to the new units by way of transfer of operations, job offer process, transfer, assignment or temporary leave from civil-servant status. The last steps of reorganization and transfer of operations were completed at the turn of 2017/2018.

In order to promote Telekom Deutschland's targeted transformation, a needs-based staffing strategy was developed, consisting of three elements: staff cuts, restructuring and safeguarding the company's future. The strategy entails monitoring of how requirements change over time in the individual companies and units. This is the basis for planning ideal headcount development. To this end, Telekom Deutschland uses a forward-looking competence management concept that analyzes which skills will be in demand in the future. The concept allows a reasonable assessment of the areas where staff cuts or recruitment should take place and of how existing skills need to be managed and missing skills need to be added. In addition, this helps to transfer employees to new positions, also beyond their own departments, and ensure systematic succession management. The year 2017 also saw new impetus for transfers to a different employment relationship – such as by making phased retirement more flexible, which can now last between two and eight years. Special severance packages are also still on offer, especially for managers.

Telekom Deutschland is also going down new paths with respect to working hours. "Breathing working time" is one example of this. This concept enables flexible response to fluctuation in workload, such as during network expansion activities. In order to introduce the new model, a collective agreement was concluded with ver.di as a basis for a temporary increase in weekly working hours. Next, specific regulations were agreed with the works councils of six technology units. These regulations have been applicable for about 2,600 employees since April 2017. This way, a "breathing capacity" of around 150 employees was created, enabling a flexible response to special requirements. This concept is scheduled to be expanded in the technology units.

FLEXIBLE WORKING HOUR SCHEMES EXPANDED FURTHER

We offer a wide range of optional working models tailored to the needs of specific target groups. These are based on the laws and regulations applicable in the individual countries. Working hours at the Group companies in Germany are governed by collective agreements and works agreements. Daily working hours are electronically recorded for employees who are covered by collective agreements. This guarantees compliance with legal and company regulations; for example, it makes sure that the weekly working hours for a specific flexitime balancing period are complied with. At a large corporation such as ours, regulations are diverse and cannot be fully specified for all the Group companies.

Our flexible and innovative working time models were honored with an award in 2017: the Time-to-Change project received the Pillar World Award. The project consists of three individual measures: tandem, right of return from part-time work and additional days off. Deutsche Telekom Services GmbH received Gold in the "Employer of the Year" category and silver in the "Best Products & Services of the Year" category.

Promoting part-time work
Working based on various part-time models is a concept that is established throughout the Group. We have offered our employees a return to work guarantee since 2014, with employees being able to return to their original weekly working hours at any time. To promote part-time work for executives as well, we adopted a policy to this end in 2010. A total of 27 executives throughout Germany were working part-time as of December 31, 2017. Deutsche Telekom also made a similar voluntary commitment regarding employees covered by collective agreements and civil servants. What's more, 14 percent of employees covered by collective agreements and 20 percent of civil servants were working based on part-time models as of December 31, 2017. In 2017 we developed another part-time model for our employees in Germany, which we refer to as "additional days off" and which is scheduled to go into effect in 2018. This model enables part-time employees to accumulate additional days off. We also offer a number of additional part-time options for reducing working hours such as job sharing, in which two or more employees share a position. This option can be employed using a job splitting model where each employee is responsible for different tasks or via job pairing, where employees share responsibility for one area.

Mobile working
Mobile working is the normal state of affairs at Deutsche Telekom. We laid the foundations for this back in 2016. Deutsche Telekom and ver.di agreed on the first collective agreement on mobile working concluded by an employer association, which includes rules regarding telecommuting and mobile working, among others. Thanks to increased geographic flexibility, our employees have more freedom to plan their work, thereby gaining more job satisfaction and increasing productivity - and allowing them to achieve a better work-life balance.

Lifetime work accounts
Since 2016 we have offered about 80,000 employees in Germany so-called lifetime work accounts. About 20,000 civil servants in Germany have had this option available to them since 2017, which allows them to finance a future leave of absence lasting more than one month. The account may be used for early retirement, a sabbatical or to support a period of part-time work. Our employees can finance their lifetime work account either from their gross salary or with time credits converted into monetary amounts. Until 2018 we will also support employees who are

below a certain income limit with an annual contribution. We had already set up 8,629 accounts for employees and 575 accounts for civil servants by the end of 2017.

Phased retirement
We offer all Group employees over the age of 54 the option of phased retirement. Separate regulations apply for employees and for civil servants. Phased retirement can be taken either based on the block or the part-time model. Unlike regular part-time regulations, we make a substantial top-up payment to the employees' part-time pay with our phased retirement offer. This means that reducing their weekly hours does not equate to a proportionately high reduction in net pay for employees. During the reporting year, a total of 1,747 phased retirement contracts were concluded with employees both covered and not covered by c ollective agreements. Among civil servants there were 580 such contracts.

Part-time training for single parents We have been offering single parents up to the age of 25 the opportunity to complete a training program or cooperative course of study part-time at Deutsche Telekom in Germany since 2011 in collaboration with the German Federal Employment Agency 22 young people began their part-time training with this program in 2017.

Re-entry into the workforce after parental leave We offer all Group employees the option of re-entering the workforce with part-time work after parental leave.

IMPLEMENTATION OF THE 2016 COLLECTIVE BARGAINING ROUND AND OTHER HARMONIZATIONS IN 2017

In the course of the 2016 collective bargaining round, the second phase of salary increases was successfully implemented for the majority of Deutsche Telekom employees in Germany.

- Starting in 2016, the salaries of roughly 60,000 employees covered by collective agreements at Deutsche Telekom AG and in the Germany operating segment were raised in two phases by a total of 4.7 percent for employees in the lower pay groups and 4.3 percent for employees in the higher pay groups. After the first increase in 2016, the second increase took place on April 1, 2017. The duration of the new collective wage agreements is 24 months and they are scheduled to end on January 31, 2018.

- Salaries at T-Systems for some 20,000 employees under collective agreements will be raised in two phases by a total of 3 percent for employees in the lower pay groups and a total of 2.5 percent for employees in the higher pay groups. After the first increase in 2016, the second increase took place on April 1, 2017. The collective wage agreement has a term of 24 months and will expire on March 31, 2018.

- The wages of apprentices and students in cooperative study programs will also be increased in two phases. After the first increase in 2016 by EUR 35.00, another increase of EUR 25.00 followed on April 1, 2017. Subsistence allowance for apprentices not living with their parents was increased by EUR 23 for all those eligible.

- The standardization and harmonization of our German remuneration systems adopted in the 2016 collective bargaining round was further driven forward. The first successful collective bargaining took place in 2017; the results will be implemented on January 1, 2018 and January 1, 2019. Collective bargaining on additional harmonization topics will take place in 2018.

GREAT INTEREST IN EMPLOYEE SURVEY

Our employee survey, which is conducted every two years, is an important tool for obtaining feedback from our employees, discovering weaknesses and implementing suitable measures to eliminate those weaknesses. The twice-yearly pulse survey additionally helps us obtain a current snapshot of the mood at the company and verify whether the introduced measures have been successful. This lets us make quick adjustments if necessary.

Some 75 percent of employees throughout the Group took part in the 2017 employee survey. The Group index value for commitment – our gage for employee satisfaction – was 4.1 on a scale of 1 to 5, with five being the highest. The pulse survey in November 2017 saw a 71 percent response rate among employees. 72 percent of participants expressed high satisfaction with their employer.

TRUST-BASED COOPERATION WITH EMPLOYEE REPRESENTATIVES

Co-determination rights play a key role with respect to digital transformation. We want to create the working world of the future alongside employee representatives and unions – with an eye towards the needs of our workforce and the success of our company. We negotiated and signed over 200 agreements in 2017 through constructive dialog with our works councils. One key project was the organizational measure "Einfach Anders" (Simply different), which focused on a re-alignment of the entities within the Germany operational segment of the Group. The new organizational structure allowed us to harmonize the management of service responsibilities combined within the Service board department, to establish a customer-centric sales process for consumers and business customers in separate sales entities, and to combine the activities for the network build-out in a single entity. We concluded another 65 collective agreements with the union ver.di in 2017. In order to make phased retirement an even more attractive option for leaving working life early with sufficient social security, a general collective agreement on phased retirement was concluded in 2017 between ArbeitgeberverbandfürTelekommunikation und IT e.V. (agvcomunitye.V., the employers' association for the telecommunications and IT industry) and the ver.di union.

The works councils, central works councils and Group Works Council represent the interests of our employees at our Group in Germany. Our partner at a European level is the European Works Council. We also have executive staff representation committees and disabled employee representatives at the unit, company and Group level. Collective bargaining plays an important role and has a long tradition at our company, a fact made clear by the percentage of employees covered by collective agreements. As of December31, 2016, some 69percent of employees in Germany were covered by collective agreements.

Constructive dialog with T-Mobile USA
As the underlying laws and contracts vary from country to country, codetermination matters with trade unions and employee representatives are managed locally. Group management is involved in all major issues as a matter of principle.

We carefully monitored trade union issues in the USA operational segment in 2017 and discussed individual cases in dialog with the management of T-Mobile USA. The responsibility for national Human Resources Management matters lies with the management of T-Mobile USA. This responsibility is administered with a high degree of dedication and accompanied by excellent customer satisfaction results. In a US-wide survey of 360,000 customers by market research institute HarrisX, T-Mobile USA received the highest customer satisfaction ratings among all network operators in the US for all four quarters of 2017.

Deutsche Telekom respects freedom of association and the right to collective bargaining in accordance with national regulations. This naturally applies to the USA as well. All employees at T-Mobile USA have the right to form and join a trade union. At the same time, employees are free to choose not to do so. T-Mobile USA will not exert any influence on this decision and will not favor or impede employees based on their choice.

The results of the employee survey in 2017 showed that 93 percent of employees are proud to work for T-Mobile USA. Some 88 percent would recommend T-Mobile USA as an attractive employer, and 84 percent feel inspired by the company such that they go beyond their normal job requirements to make the company more successful. These results are some of the highest in the entire Group.

TMUS has also been honored with a Glassdoor Employees' Choice Award, recognizing the Best Places to Work in 2018. The Employees' Choice Awards program, now in its 10th year, relies solely on the input of employees, who elect to provide feedback on their jobs, work environments and companies via Glassdoor. More than four out of five (81%) T-Mobile USA employees say they recommend the company to a friend. This is the highest percentage of any company in the US mobile communications industry. In addition to this award from Glassdoor, T-Mobile USA received further recognitions for Best Places to Work throughout 2017.

GOOD PARTICIPATION IN GROUP-WIDE IDEA GENERATION MANAGEMENT

Many employees once again took part in idea generation management in 2017. In Germany, every 15th employee submitted a new idea, giving us a continually high participation rate. The economic benefit translated into a total of 99 million euros in cost savings and tapping of new business potential. With a total of 6,902 new ideas, employees again proved the great extent of their interest in helping shape the Group through creativity and commitment. They also make an important contribution to Deutsche Telekom's target objectives.

Two of our employees' ideas came up winners of the Idea Management Award 2017 bestowed by the German Institute for Idea and Innovation Management:

Bernd Zopf was awarded second place in the "Best Idea of 2017 from Production and Technology" category with his idea "Laying fiber-optic cables in the ventilation tubes of existing copper main cables".

Markus Cremer was awarded third place in the "Best Idea of 2017 from Management and Administration" category with his idea "Reducing the mast replacement rate by using an additional testing tool". Based on this idea, the mast replacement rate can be reduced from 14 percent to 10 percent, so the idea makes a significant contribution to conserving resources and reducing cost.

WE HONOR THE SERVICE OF OUR LONGTIME EMPLOYEES

In September 2017, we honored the commitment of our employees celebrating their 25th, 40th and 50th service anniversaries at Telekom Deutschland with a central Anniversary Celebration Week . The idea for Anniversary Celebration Week came about in 2008 in the customer service department and was expanded year after year due to positive employee response and importance to our corporate culture. The year 2017 also marked the first time that the employees of Telekom Technik Deutschland joined the central festivities, as previously these employees had been honored at regional celebrations. Eligible T-Systems employees were also welcomed to the joint celebrations for the first time this year. The former HR Director of Telekom Deutschland, Martin Seiler, the HR Director of T-Systems, Georg Pepping, as well as Member of the Board of Management of Deutsche Telekom AG and CEO of T-Systems, Reinhard Clemens, were all present at the celebrations.

More than 3,000 eligible employees were invited in 2017, with about 1,400 of them attending the event in Bonn personally. A total of 43,650 years of work and experience at Bundespost and Telekom were represented at our forum in Bonn during the four-day event. The excellent cooperation between our colleagues, both young and old, is a key pillar of our business success. That's because learning from each other, being interested in each other's ideas and growing and working out solutions together are basic conditions in professional life.

OCCUPATIONAL HEALTH AND SAFETY

Measures that promote health within the company not only help individual employees and ensure long-term business success, but also have positive effects on society as a whole. We use corporate health management to take on social responsibility and proactively promote a culture of health. We support our employees in maintaining their health and occupational safety with a host of target-audience-specific measures and extensive prevention programs. In doing so, we consider the statutory requirements to be only the minimum standard we must achieve.

GOALS	MEASURES	MEASURING SUCCESS
› Promoting employee health and performance	› Occupational health and safety management system › Consulting offers › Preventive measures › Assessing risks, e.g., as part of the employee survey › Regular workplace inspections	› External and internal audits › Accident rate › Health rate › Evaluating measures and offers › Employee satisfaction and health index from the employee survey and collective agreement on stress prevention

PROMOTING THE HEALTH OF OUR WORKFORCE

Our health management strategy is designed to maintain and promote our employees' health and performance. We view occupational health and safety legislation as minimum requirements.

Incorporating health and safety management throughout the Group

Our corporate occupational health and safety measures are effectively incorporated into our structures via certified management systems and appropriate policies and guidelines The foundation for this is the internationally recognized management standard OHSAS18001, which we have been using since 2010. During the reporting year, 73 German and international locations were audited according to OHSAS 18001 and ISO 14001. Their certification was renewed in all cases. With these results, we can guarantee a high health and safety standard in years to come.

All of the parties, tasks, and measures involved in the health and safety management system are described in a handbook titled Health & Safety Environment. The handbook was signed by our Board of Management as a symbol of our commitment to health and safety. Our health and safety measures are centrally steered at Group level, with health managers being responsible for implementation at the different locations. We systematically assess the effectiveness of our measures. This includes reviewing the results of our employee survey, evaluating stress prevention measures under collective agreements, competitor analyses, and other relevant indicators. The analysis of this data forms the basis for annual measures that by far exceed legal requirements. Some examples of this are our comprehensive psychosocial counseling programs as well as our driver safety training and exercise offers.

One focus of our corporate health promotion activities is encouraging our employees to assume responsibility for their own health. In this vein, we expect our managers to foster a corresponding corporate culture. Our Group-wide employee survey in particular, which is conducted in 30 countries, outlines a follow-up process which the managers go through together with their teams in 2-year cycles. Among other things, the employee survey determines the mental stress in the workplace, the available resources, and the consequences of stress on health. Health and safety management assists managers and teams when there are unsatisfactory results and provides recommendations for action together with offers based on the team results.

Different performance indicators reflect the effectiveness of our corporate health management activities:

- At Deutsche Telekom in Germany, the health rate (not counting people with long-term illnesses) in 2017 decreased slightly by 0.1 to 93.7 percent but still remained high.
- The total number of work-related accidents continued to decline in the reporting year in comparison with the previous year. The accident rate in Germany was 8.5 accidents (resulting in over three days of absence) per thousand employees, which continues to be well below the industry average.
- The Group-wide health index – calculated as part of the 2017 employee survey in 30 countries – increased positively by 0.1 to 3.6 (on a scale of 1 to 5).

In 2017, we were once again distinguished for our health and safety management. Within the scope of the German Corporate Health Award (DeutscherUnternehmenspreis Gesundheit), we received the excellence seal for our holistic corporate health management and were awarded the special prize "Innovative Corporate Health Promotion " for our Active Workplace project. We also again received the Corporate Health Award, an initiative of the Handelsblatt publishing group, among others. We've been in first place in the Service, IT, and Communication category multiple times. The jury, which consisted of experts in the fields of science, health, and occupational health and safety, especially honored the fact that health awareness is an important component of our corporate philosophy.

FIT AND MOBILE AT WORK

We have been offering our employees special fitness programs at locations in Germany since 2014 to help counteract the effects of a day spent working at their desks. Qualified "mobile fitness coaches" teach easy-to-do exercises particularly for back and neck to small teams of employees. These programs are very popular among our employees.

By the end of 2017, we had given more than 1,000 courses within the framework of our comprehensive health promotion activities.

Recent scientific studies show that taking regular breaks is more effective than lengthy exercise sessions after work for people with desk jobs. We therefore added a new exercise offer in 2016 with the Active Workplace project. This project gives our employees the opportunity to combine their job with exercise with the help of so-called desk bikes. These stationary bikes help effectively prevent health risks associated with lack of movement at the office workstation.

About 4,000 employees were able to use a desk bike during its first implementation phase. This first phase was scientifically supported by a study conducted by BerufsgenossenschaftVerkehr (the occupational accident insurer of the transportation and telecommunication industries), the Institute for Occupational Safety and Health of the German Social Accident Insurance (DGUV), and the German Sport University Cologne. The academics examined not only the test participants' levels of acceptance and whether they felt good using the equipment, but also physiological activity parameters, energy conversion levels, and individual posture. Not only were participants having fun, their mental activity also increased. Another positive side effect was that participants burned more calories when cycling than when just sitting.

Because the positive response of our employees was supported by the accompanying study, we decided to order an additional 500 desk bikes in 2017. In the meantime, over 10,000 employees have taken advantage of this program. We are planning to expand the program in 2018 and include international locations as well.

PSYCHOSOCIAL COUNSELING AS PART OF CHANGE MANAGEMENT

All employees face major challenges when there are changes in the workplace. That is why psychosocial counseling for transformation processes by the Employee and Executive Advisory Service plays an important role at Deutsche Telekom. Our goal is to provide support to employees and managers and prevent psychological crises.

To this end, we offer individual counseling and consultation hours. Employees can take advantage of several one-hour counseling sessions. Immediate phone counseling is also available through a special hotline ("TALK TIME"). We support managers and supervisors during change processes with appropriate tools. Talks and workshops on psychological health complete the offer. Targeted communication measures inform employees at affected locations of these offers.

In 2017 we especially supplemented the restructuring measures at DTSE (Deutsche Telekom Services Europe) by offering psychosocial counseling. We held special counseling days ("Employee and Executive Advisory Service on site") for greatly affected locations.

T-SYSTEMS: THE HAPPINESS PROJECT AND RESEARCH PROJECT ON MANAGERIAL HEALTH COMPETENC

Continuation of the Corporate Happiness project:

T-Systems started initiating changes in its corporate culture within the scope of a pilot project in 2016. The aim of the project is to apply the scientific findings of "positive psychology" to identify values that will enable all employees to better realize their potential. The project encourages them to independently work toward their own, as well as the company's, success. In 2016 we trained 27 "happiness ambassadors" under the pilot project, offered training courses and impulse talks, and launched the Stop Complaining initiative. Due to the positive effect of the project, we decided in 2017 to expand it throughout the entire Group and train an additional 30 happiness ambassadors. We also carried out numerous other activities at T-Systems during the reporting year. For example, we conducted various training sessions within the framework of the HR Academy, held numerous impulse talks, and offered team building measures.

Research project on managerial health competence

Managers play a key role in promoting corporate health. That's because they not only influence their employees' workplace environment but also serve as an example. Numerous studies have proven a connection between managerial conduct and employee health. At the same time, managers themselves are an important target group for corporate health promotion measures, as they are frequently exposed to higher health hazards than employees without personnel responsibility.

Managers are hence the focus of the "HeLEvi" research project - the "Health opportunities – healthy self-management: recognizing, developing, and implementing potential" training program. T-Systems has paired up with the German Sport University Cologne and the local Cologne Institute for Health Economics and Clinical Epidemiology to carry out this project. The goal of the project is to design, implement, and evaluate an evidence-based training program for promoting health competence among managers. The project is being supported by the German Federal Ministry of Education and Research.

A total of 143 managers have participated in the HeLEvi program. The project ended in November 2017 with a closing event in Bonn, during which the professors presented the research partners with the project method and the study results. The next step will be to entrench the topic and increase corporate health promotion awareness within the Group.

STRENGTHENING THE ROLE OF MANAGERS

Managers play an important role at the company when it comes to health promotion. In order to support Deutshe Telekom managers in their exemplary function, we already offer web-based training in addition to individual coaching. Topics include occupational health and safety, employee mental health, and corporate integration management after long-term illness. Health promotion is also a component of our current management development programs. Our managers can choose from among a comprehensive portfolio of offers for supporting their managerial competence. One such example is the "HelEvi" project - the evidence-based development program for T-Systems managers.

DIGITALIZATION AND HEALTH – A JOINT PROJECT WITH HEALTH

INSURER BARMER

In 2016, researchers at the University of St. Gallen commissioned by health insurer BARMER and Deutsche Telekom examined how digitalization had changed the working world. The study showed positive aspects of digitalization, e.g. more flexible configuration of working hours and locations. Nevertheless, the results also pointed out risk factors with respect to physical and mental health. The study results are the basis for a corporate health management project that we started at the Group in May 2017 together with health insurer BARMER.

The aim of the project is to scientifically examine the effects of digitized workplaces as well as other use of digital technologies on employee health. With its "Digitalization and Health" pilot project, Deutsche Telekom is the first company to systematically tackle this range of topics together with a health insurer. The goal is to increase employee performance and identify starting points for engaging in early prevention within the corporate context. The project connects science, HR management, employee representatives as well as health business units, thereby contributing to innovative human resources and health management. Managers are the focus of this project. On the one hand, their managerial conduct is a decisive factor in the success of digitalization. On the other hand, they also bear a significant responsibility, for which they require support.

Initial measures were already tested at the end of 2017 – including M-Sence, an app for headache prevention, and Soma-Analytics, an app that provides personalized feedback on improving mental resilience and productivity. Other pilot projects are planned for 2018. A digital guide will be created, among other things, which will help with the selection of the individually appropriate health promotion measures.

HEALTH AND SPORTS AT T-SYSTEMS MEXICO

Health Month

As part of our “Total Health” Program, an in-company training program was launched to promote physical exercise, improve the health and lifestyle of employees, and enable them to participate in relaxing activities with their co-workers.

This year’s “Health Month” was organized in October 2017 and included activities for all our employees. The company received government supportthrough the Mexican Social Security Institute and employees were offered a check-up with eye test, blood-pressure measurements, testing for glucose levels, vaccinations for seasonal diseases, and height and weight checks.The program included six health presentations, five guest specialists in insurance, dental and eye care, and four courses on civil defense. 371 employees took part in the Health Month representing 30 % of the workforce. They were able to attend any of the health events held in Puebla and Mexico City.

Sports Tournaments

T-Systems Mexico seeks to promote greater integration, better quality of life, and a good work-life balance. This year TSMX organized various sports tournaments such as volleyball, basketball, soccer, and dominos from January to December. There was a big uptake and approximately 40 % of our employees took part in various activities. This helped to improve our work ethic,enhanced teamwork, contributed to a healthy lifestyle and released stress.

MEDICAL CHECK-UPS AT T-SYSTEMS IN RUSSIA

In 2017, all employees atT-Systems CIS & Rus were given an opportunity tohave a preventive medical check-up throughout the year. It included checks by the specialists listedbelow (Neurologist, Ophthalmologist, Cardiologist, and others).

A total of 1074 employees attended the medical check-up in 2017.

305 employees were vaccinated in the fall of 2017 (voluntarily).

The doctor in the office is still available every Tuesday from11 a.m. until 3.00 p.m. for a consultation. Between15 and 20 employees are given check-ups each week.

TRAINING AND DEVELOPMENT

Whether they are entry-level professionals, experts or managers – we offer our employees diverse development opportunities. That's because we know we can only master the dynamic challenges of our industry with excellently qualified and motivated employees. We offer them a wide range of individual training and development options, such as work abroad or work/study programs. Thanks to our comprehensive training and continued education offers in both the technical and commercial fields, we are actively preventing our company from being affected by the increasing shortage of skilled specialists. This way we can strengthen our company's competitiveness and prepare ourselves for the digital future.

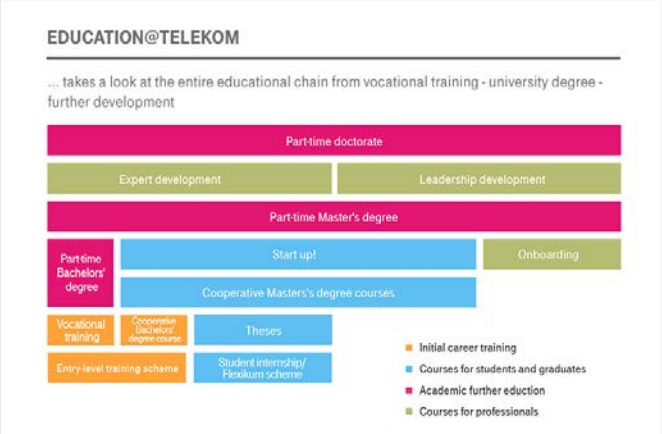
GOALS	MEASURES	MEASURING SUCCESS
› Promoting our employees' skills development and performance	› Training offers › Training and development › Management development › Talent programs › Digital forms of learning	› Number of openings for apprentices › Participation in training and development opportunities › Percentage of digital learning formats used › Employee satisfaction

PREPARING OURSELVES FOR THE DIGITAL WORKING WORLD

With a combined total of more than 6,600 apprentices and students on cooperative degree programs in the 2017/2018 training year, Deutsche Telekom is one of Germany's biggest training providers. In 2017 we provided 2,200 training positions throughout the Group, of which 1,300 apprenticeships, 700 openings for Bachelor's students and 100 for Master's students. Up to 100 training positions were open to young refugees.

We promote lifelong learning and offer our employees a wide range of individual training and development opportunities, such as various programs for advancing expert or management careers.

The cornerstones of our vocational training and development programs are our our Employee Relations Policy, the Guiding Principles and the Leadership Principles.



Digital skills are the key to the future

We gear our training and continuing education offers to future-oriented strategic key areas such as big data, All IP and security. For example, our Cyber Security Professional program, which we started in 2014, started its fourth year during the reporting period. In March 2017, all participants in the program's first year successfully passed their final exams.

T-Systems created the Training & Skills Management (TSKM) department in 2017. For example, TSKM supports the transformation of T-Systems, with 2,700 measures (as of November 2017), various skills management offers and an internal service agency with a special skills development portfolio. TSKM has an eye on technology trends such as artificial intelligence and hybrid cloud, analyzes possible training requirements and develops a suitable offering for T-Systems employees.

Digital learning is becoming standard

We have been promoting digital learning at our Group for many years. In 2017 more than 37 percent of all course hours were completed in digital form. We use innovative formats such as our Massive Open Online Courses (MOOCs) as well as simulations, concise learning modules for on the go and learning games. We also rely increasingly on self-organized digital learning. For example, experts discuss future topics in Communities of Practice (CoPs). In 2017 there were 30 such CoPs working on strategic topics such as cyber security, clouds and Industry 4.0 img.

The digital learning options are being gradually expanded, with T-Systems purchasing licenses for external online learning platforms since 2016. T-Systems employees can use these platforms to take advantage of various learning opportunities regardless of their location and according to their needs. In 2017 T-Systems added another provider to its portfolio, who provides digital learning offers specially for experts in the IT sector.

Strengthening managers
The portfolio for management development programs at Deutsche Telekom AG was completely redesigned in 2017. The contained programs focus on helping DT managers to master challenges and assisting them with their management duties. In addition to an extensive training catalog, which supports managers in mastering their requirements, many new – primarily digital – programs were developed and carried out in 2017.

Proven tools for performance assessment
The Performance Dialog is the tool that we use to assess the performance of top-level managers. Around 2,800 managers are evaluated with this tool. The assessment involves not only target achievement levels but also looks at how the manager went about achieving these goals. Managers complete a self-assessment and obtain feedback from their colleagues who share the same hierarchy level.

We also continue to use our Compass tool to assess civil servants and employees covered by collective agreements in Germany and our Performance & Potential Review for employees outside collective agreements in Germany, a tool that is also used at many of our national companies.

Reviewing effectiveness
We review the effectiveness of our training and development activities. These reviews involve standardized surveys conducted as part of our quality circle, which gives us a regular overview of the quality of our training and development activities via monthly reports. This allows us to continuously ensure the quality of the individual measures. Our Bologna@Telekom program designed to encourage part-time study, for example, is subject to extensive quality controls – from the application process to graduate management. We also use our regular employee survey to evaluate our training and continuing education offers and employ additional tools beyond our standard reports and surveys in special cases.

WE WANT TO BE A MAGNET FOR GLOBAL DIGITAL TALENT

As a leading European ICT service provider, we need the best minds: creative thinkers and employees with a knack for technology that want to help us design the digital transformation. We look for top talent in all countries, which also contributes to the further internationalization of our Group. We offer applicants a worldwide platform for job searches and international standards in our selection process. To further strengthen our employer brand in the growing job markets, we developed a new global Employer Value Proposition (EVP) in 2017. This value proposition showcases what distinguishes us as an employer and helps us to achieve a consistent perception of our Group across all target groups.

We also use digital channels for recruiting. This includes our Global Online Challenge Platform, which we use to reach students, graduates, start-ups and IT professionals worldwide who enjoy mastering virtual business games. Our recruiting robot Roberta is our answer to "living digitalization". Roberta allows colleagues to participate in trade shows, events and trade congresses, personally answer questions on site and even provide people with live glimpses of Deutsche Telekom's working world - all while sitting at their office desk. Completely in line with our motto, "We shape the digital world to bring people closer together", we are shaping the digital world in order to bring people together and establish close relationships. Take the CMD+O project, which served to create an open workspace at the end of 2017 in Berlin for two weeks for students and young professionals. Those who were interested could take part in workshops and attend presentations. By employing these and other measures, we were able to acquire over 1,000 IT and telecommunications experts in Germany alone in 2017.

We received several honors for our recruiting activities in 2017 as well. Our Find Your Team career website received the HR Excellence Award 2017. The portal is helping us go down a new path between the classic career website and job search portal, where future colleagues and teams introduce themselves to each other. Every applicant thus has the opportunity to get to know the diversity of people, working methods, topics and tasks at our Group. We received the Innovation of the Year European HR Excellence Award for our recruiting robot Roberta. We also achieved second place for our social media activities in Germany in the overall ranking of market research institute Potentialpark. Furthermore, we were able to impress visitors to Europe's largest career trade fair for women, women&work, with our trade fair presence, which resulted in them once again selecting us as the most appealing employer.

We are particularly focused on increasing our attractiveness as an employer in new and growing markets. An example: Our Women's STEM Award, which we have been presenting since 2013 in collaboration with "audimax" student magazine and the MINT-Zukunft-schaffen (Creating a STEM future) initiative, is now open to STEM students not only from Germany but also from other European countries. We will continue to promote the participation of women in STEM topics.

START UP!: OUR TRAINEE PROGRAM FOR YOUNG INNOVATORS

Our Start up! trainee program helps young people start their career at Deutsche Telekom in Germany with a good skill set under their belt. The trainee program above all targets technology and IT graduates who have an entrepreneurial spirit and are open to new challenges. Since we also explicitly want to reach talent outside of Germany, we adapted our language requirements to those applicants in 2017. In the reporting period we accepted 32 university graduates into our trainee program, roughly 50 percent of whom were women. We want to increase the number of new trainees in the future.

During a period lasting 15 to 18 months, trainees familiarize themselves with different areas of the company in Germany and abroad. They take on challenging project assignments in various business areas. Experienced mentors assist the trainees. The program is supplemented by innovative training formats and events. Our Start up! trainees also pursue their own initiatives and support social projects within the context of our Social Days.

DEUTSCHE TELEKOM'S IN-HOUSE UNIVERSITY EDUCATES THE EXPERTS OF TOMORROW

We educate experts for tomorrow's telecoms market at our University of Applied Sciences in Leipzig (HfTL). With 1,400 students in full-time, cooperative and part-time Bachelor's and Master's programs, HfTL is the only university in Germany to offer this special profile. When it

comes to research, it focuses on ambitious topics that are relevant to society like conserving natural resources and advancing Germany's standing in the technology sector. Both research and academia are involved with innovative digitalization topics such as Industry 4.0 and smart cities. Digitalization plays an important role in supporting learning and teaching methods (blended learning) and in IT-assisted planning and administrative processes at HfTL.

Deutsche Telekom is currently examining the possibilities of further developing and aligning its university. One of these possibilities could be the creation of a foundation faculty for digital transformation at the adjacent Leipzig University of Applied Sciences (HTWK Leipzig). Initial evaluations show that combining the competencies of both academic institutions can lead to additional strong impulses for IT development in Leipzig and Saxony.

Data privacy certification program for Deutsche Telekom employees
Data privacy and data security are essential for acceptance and use of modern technologies. After successful implementation of an initial continuing education offer, Deutsche Telekom employees have been communicating detailed technical, legal and organizational knowledge in the area of data protection and data security since March 2018 within the scope of a certification program. The program qualifies participants for handling and managing demanding projects. We also want to offer participants with the right qualifications the opportunity to complete the certification program with a Master's degree.

Position paper on artificial intelligence
Use of artificial intelligence (AI) is an important driver of digital transformation and is very rapidly gaining in importance at companies, government agencies and in our daily lives. Not many people are aware that AI is used in Internet searches, in online shops and for voice-controlled assistants. In 2017 the industry association Bitkom published a position paper titled "AI-Assisted Decision-Making", which explained the importance of algorithms in the digitalization of business models nowadays. The position paper was authored by a large team of business and science experts, including experts from HfTL. It is the basis for the discussion of the social, economic and ethical prerequisites for making AI a success in digitalization.

Students are given insights into research and development activities
A key element in our study programs at HfTL is to actively involve students in research and development projects. Some important projects in 2017 were the following:

- Prototype of a digital organ donor card developedIn the past, there was no digital solution for documenting a person's decision to be or not be an organ donor. A team of students has now developed a prototype of a digital organ donor card. The card holder's personal decision can be saved in a database using an app. The app is easy to use and features a strict data security concept. What's more, the app features a comprehensive FAQ section, articles that clear up common prejudices about organ donation and other helpful information. A fun quiz tests users' knowledge about organ donation. The students will present the prototype to the Federal Centre for Health Education (BZgA) in 2018.
- Intelligent lighting in carsIn recent years, HfTL students teamed up with the Institute of Textile Technology at RWTH Aachen University and the Dormagen-based company Perlon-Nextrusion GmbH to develop an environmentally friendly and energy-efficient manufacturing process for optical polymer fibers. This process cannot only be used in data communication, but also for intelligent lighting concepts in the car, especially for surface lighting of roof liners.
- Optical technologies for fifth generation (5G) mobile communications, the next mobile communications generation, will use many different technologies, including optical transmission. In this context, HfLT is carrying out multiple research activities with student involvement. For example, the properties of LED are being investigated and a model is being developed that will predict the extent to which LED is suitable for data communication. The research activities have been integrated into the international standardization activities of the IEEE (Institute of Electrical and Electronics Engineers). They are slated to be further developed within the European context.
- Another project, being conducted together with the Telekom Innovation Laboratories in Berlin, is comparing and assessing the performance of free-space optical communication and 60-GHz technology under various weather conditions.

PROMOTING THE DIVERSITY OF OUR YOUNG TALENT

We stand for open-mindedness and are committed to diversity also among our young talents. To this end, we pay attention to the most varied of performance levels and needs:

- Depending on how long their families have been in Germany and where they come from, young people with migrant backgrounds often encounter particular problems on the job and vocational training market. We see encouraging them as an opportunity and are careful to guarantee a non-discriminatory selection process. As of December 31, 2017, 10.3 percent of our apprentices and students in cooperative degree programs in Germany have a nationality other than German, representing a total of 68 other countries.
- In 2009 we launched the "My chance to get going" entry-level training scheme in collaboration with the German Federal Employment Agency. The project prepares disadvantaged young people with very little chances on the vocational training market for an apprenticeship at Deutsche Telekom. Results so far have been good. A total of 460 out of 664 interns from 2009 through 2016 started a vocational training program with us; 110 were accepted into the first year of the program and 350 directly into the second year. Another approx. 20 interns started the program in 2017.
- Since 2011 we have been collaborating with the German Federal Employment Agency to offer single parents the opportunity to complete a training program or cooperative degree program part-time. 22 young people began their part-time training with this program in 2017.

- To encourage diversity in the program, we also work to increase the number of women participating in technical cooperative study programs. While in 2010 the share of women was only 11 percent in Germany, it has meanwhile risen to 17.6 percent.

- Around 1.2 percent of our apprentices in Germany are young people with disabilities. This is above-average in view of the total number of disabled people in Germany.

We offer in our refugee initiative in Germany up to 100 training positions, entry-level training schemes and cooperative Bachelor's and Master's programs. In our recruiting efforts, we rely on our long-term successful cooperation with the Federal Employment Agency, social media communication and dedicated volunteers. We want to optimally support the refugees to help them integrate into regular educational structures. They receive support from their trainers or coaches and also have the opportunity to attend additional, job-related language courses. The training staff receive assistance from an external service provider to make sure that the needs of this target group are met. The refugees also have access to counseling and supportive services as needed.

PROMOTING DIGITAL COMPETENCE IN TRAINING

We want to enable our young talent to competently use digital tools such as e-learning systems, communicate online in a professional manner, research and properly process information for a specific target group and share their knowledge and experiences with others. It is also important for them to critically assess their own media use and know which online information is reliable.

Digital learning: flexible and individual

To make learning more location- and time-independent, we equip our apprentices with modern laptops, smartphones and access to our Group's internal social network YAM. We are continuously expanding our digital formats when communicating career- and study-specific expertise. Additionally, our apprentices use the TelTec learning platform, with which they can independently plan, document and balance the learning process. The platform also offers a digital learning blog, which can be used as a learning aid and also as preparation for the introduction of a new digital learning portfolio in 2018. The new portfolio will do even more to help the apprentices plan, document and reflect on their learning phases.

ADVANCED TRAINING TO BECOME A CYBER SECURITY PROFESSIONAL: SUCCESSFUL TRAINING OF FIRST COMPANY-OWN HACKERS

Our training courses for cyber security professionals (certified by the Chamber of Commerce and Industry) are important continuing education offers in Germany. Data protection experts are rare in today's labor market – which is why we started the part-time training program in 2014 that bridges this gap. In 2017 all of the participants of the first year of the program successfully completed their training and passed their exams at the German Chamber of Industry and Commerce. All of the graduates were given positions at various Telekom Security units.

Deutsche Telekom apprentices and students in cooperative study programs can apply for the two-and-a-half-year part-time course after completion of their vocational training or course of study. If they are accepted, the program is integrated into their regular tasks and supplemented by topic-based and general modules in a variety of formats (classroom courses, e-learning, blended learning). Those who complete the development program receive a certificate for IT security professionals from the German Chamber of Commerce and Industry.

The fourth year of the program started in September 2017 with 12 participants. In 2016 we won third place with our innovative continuing education concept in the "Large Enterprise" category at the Education Awards hosted by the German Chambers of Commerce and Industry (DIHK).

COMPETENCE MANAGEMENT: PREPARED FOR THE CHALLENGES OF TOMORROW

To remain competitive in the future, we are gearing our continuing education programs, skills-building measures and recruitment practice to the skills that will be needed in the future.

T-Systems HR Academy continued

Our HR experts also need regular continuing education to help them stay on top of the latest technological trends and future skills requirements. The T-Systems HR Academy focuses on the requirements of the digital future. To date, more than 1,300 experts have taken part in 59 workshops. The focus was on methods, tools and topics such as corporate happiness and collaboration. The feedback on these offers was very positive.

T-Systems: transparent processes for requirements planning

The pace of technological development is becoming increasingly faster. Correspondingly, the requirements regarding employee skills are also changing. In order to survive in a highly competitive environment, employers must be precise in planning requirements and resources and ensure that the right skills are available at the right time in the right place. Companies need clarity about the required skills so as to offer the corresponding training opportunities.

One thing is clear, however: conventional resource management is nearing its limit. That is why T-Systems launched the Dynamic Capacity Management (DCM) project in 2017. The goal is to create worldwide transparency about existing and necessary skills, identify possible gaps and derive specific action areas and measures, such as strategic skills development and recruiting activities. Such transparency is an essential prerequisite for targeted staffing of future deals and projects. After the project content and project managers were identified and the respective departments committed to the project in April 2017, the project was officially launched in May 2017. DCM processes will be based on an IT tool that is already established at the company. Following successfully concluded talks with the employee representatives, a pilot phase will start at the beginning of 2018. Over 200 employees with various job profiles, such as project managers and IT architects, will test the newly designed processes. The focus will be on testing the functionality of the IT applications and the efficiency of the new roles and processes. With DCM we offer our employees increased transparency about the skills we are looking for and the possibility of channeling their own development accordingly.

Telekom Deutschland: Planning the job profiles of the future
Competence management also plays an important role at Telekom Deutschland. Skills needed by employees in the future are identified early on. HR and the respective departments, such as Sales, Service and Technology, work together closely on this. They jointly identify strategic focal topics, develop future job profiles and determine the skills and hiring needs through the year 2020. Measures are then defined to close any gaps in terms of skills, hiring and training. The pilot project started in 2015 at Technology with the "speed boat technology". The second step was to develop a skills database and test it in a pilot project involving specific departments in 2017. Here skill deficits are being determined in detail, training measures devised and other assertions made regarding retraining and recruitment. Further pilot expansions and negotiations with the employee representatives for a Group-wide rollout will follow in 2018.

FUTURE WORK – WORKING IN THE DIGITAL AGE

We support mobile working models and give our employees the freedom to shape their working environment. The working environment of the future – Future Work – is based on four modules: open-plan offices, desk-sharing, mobile working and a new type of collaboration. We provide the corresponding IT solutions. Since the launch of the Future Work concept in 2014 in Germany, we have equipped Group headquarters in Bonn and the Hamburg and Frankfurt locations with open office areas, the option of desk sharing, networking rooms as well as project and creativity rooms. We continued down this path in 2017. The focuses were:

Virtual and self-organized cooperation
More and more, our employees are no longer working in inflexible, closed project teams but rather are developing cross-functional and cross-hierarchical solutions. This also helps them expand their knowledge and better see the big picture.

In 2017, for example, there were 30 Communities of Practice (CoPs) at T-Systems working on strategic topics such as cyber security, clouds and Industry 4.0 – less than in the previous year (40). The reason for this was a concentration and bundling of the CoP topics. A guideline introduced in 2017 and a platform for sharing best practices are helping to continuously improve this form of cooperation.

The T-Systems' HR Academy focused, among other things, on the topics of digital collaboration and new working methods in 2017. One highlight of the year was the Virtual HR Convention. About 400 employees from 21 countries took part in 14 virtual workshops and presentations. In this context, we handed out seven HR Awards to teams who worked together particularly successfully. The most important ideas stemming from the workshops – on topics such as attitude, strengths and a positive culture of dealing with mistakes – will be further elaborated and implemented after the convention.

Agile project work – effective and success
Customer projects are becoming more complex and dynamic. That's why instead of using classic project planning, we rely on agile working methods, so that we can be flexible in responding to customer requirements. Simple methods, combined with the right agile tools, ensure communication, effective teamwork and a coordinated approach in the team. In 2017 we launched the GSI Goes Agile program to consolidate the many agile initiatives within Global Systems Integration at T-Systems, some of which were established years ago. Our Agile University offers employees training and certifications on agile methods and roles, such as Scrum Master, as well as design thinking. About 1,000 employees have taken part so far.

Of course, we need the right framework conditions in order to make agile working successful. That is why in 2017 T-Systems became a partner of the diGAP (Good Agile Project Work in the Digitalized World) research project sponsored by the Federal Ministry of Education and Research. This project is investigating agile working in order to derive recommended actions for designing the working environment and the cooperation of agile teams. Agile project methods have been on the agenda of T-Systems' Global Systems Integration (GSI) department for quite some time now. That's why a preliminary study on diGAP entailed a survey of GSI employees, asking about their experiences. In September 2017, the results of the survey were presented to the diGAP project, where they will serve as the foundation for further data collection and measures. The research project will run for a term of three years.

ENCOURAGING AND RETAINING TALENT

Dedicated, technology-minded and service-oriented employees are pivotal to the success of our business. The aim of our global talent management is to identify such employees at the company, support and involve them, give them opportunities for further development and ultimately retain them.

Global Talent Pool: A new Group-wide process simplifies staffing
Employees planning their next career step or who want to amass experience in projects can join the Global Talent Pool. With more than 850 employee profiles, some 25 percent of which were posted by women and 56 percent by international colleagues, almost two-thirds more employees introduced themselves on the new platform compared to the predecessor platform during the reporting year. The share of female colleagues (27 percent in 2016) remained about the same, while the number of international employees on the platform rose significantly (41 percent in 2016). The platform is a useful tool for increasing talent visibility and simplifying staffing processes throughout the Group. HR experts are able to peruse the profiles employees post to the platform and contact suitable candidates. The Global Talent Pool also encourages employees to gain experience at different business units or national companies and in a range of functions, furthering diversity at the Group.

Talent conferences offer opportunities to engage in dialog
In September 2017, around 350 employees from about 20 countries attended two conferences. One of these conferences took place simultaneously in Bonn and Athens, linked by live streaming. Participants had the opportunity to learn more about effective strategies to help them advance their careers in the age of increasing competition by AI and robotics. The event also offered an opportunity to network with around 65 of the Group's top-level managers, who made guest appearances at the event.

MANAGER PERFORMANCE REVIEWS REVISED BASED ON PERFORMANCE DIALOG

The Performance Dialog, introduced in 2014, is a Group-wide, systematic process for the assessment and development of our managers. It takes place once per year and is based on continuous feedback. However, the manager's leadership behavior is not only evaluated by his/her direct supervisor but by his/her colleagues on the same hierarchy level as well. The goal is to assess the manager's potential and continuously improve individual performance. In 2017 we restructured the Performance Dialog and simplified the process. We now focus on the manager's individual development and strengthening the feedback culture. The new performance management process is modular in design so that preferences and situational circumstances can be taken into account.

This performance assessment continues to be based on our Guiding Principles and our Leadership Principles of "Collaborate," "Innovate" and "Empower to Perform."

Our Compass tool for assessing employees covered by collective agreements and civil servants in Germany and our international Performance & Potential Review continue to be used throughout the Group.

MANAGEMENT DEVELOPMENT PROGRAMS EXPANDED

Our new levelUP! program prepares executives at Deutsche Telekom to handle the topics of tomorrow in just ten months. The model of the ambidextrous organization sets the focus on strengthening a culture of innovation and technology-based management within the initiative. A mixture of digital and on-site formats enables managers to shape their learning flexibly and individually and define their own learning pathways. 700 managers at Deutsche Telekom took part in levelUP! in 2017; another class is planned for 2018.

leadFirst is a completely digital, virtual management transition program that is intended for managers who have recently assumed a management position at DT International. Its aim is to convey their new roles to the managers clearly and comprehensively and to create a solid management foundation in harmony with the leadership principles at Deutsche Telekom AG.

During the program, the participants reflect on their own ideas regarding leadership. This global, digital program not only helps to develop leadership skills at the highest level, but also promotes virtual leadership skills and offers numerous opportunities for networking.

We also offer a wide range of challenging training courses for future leaders in our German-language management development program (Führungskräfte-Entwicklungsprogramm, FEP) and our English-language Leadership Development Program (LDP). Both programs prepare participants for their first or more challenging management positions. With these steps, we also aim to implement a shared vision of leadership within Deutsche Telekom AG.

YOUTH IN T-SYSTEMS SOUTH AFRICA

T-Systems South Africa established an internal Internship Program in 2006, to assist graduates with work experience. The Internship Program, registered with MICT Seta, is a one-year structured program comprising 95 % practical training with the balance being complimented by mentoring, life skills, and technical training.

Every year, the program offers interns an opportunity to get international exposure through a 5 to 6-week International Exchange Program. To date, over 700 interns have participated in the program, with a placement rate of 75%. However, 2015 boasted a 96% placement rate, of which 80% are employed within T Systems.

Not only do the interns receive valuable practical experience, they also receive soft skills training in the following areas: Twelve modules are covered during the internship contract period: World of Work, Communications, Customer Service, Self Awareness & Personal Branding, Conflict & Diversity Management, Personal Finances, Presentations & Assertiveness, Business Writing and Job Readiness.

AWARDS AND ACCOLADES FOR YOUTH PROGRAMS

YEAR	AWARD
2013	1ST Place in the Diversity Awards (Leadership in the Field of Transformation, Diversity and Inclusion)
2014	Gender Mainstreaming Award for female youth
2015	CompTIA Largest Academic Partner in Africa Gender Mainstreaming Award for initiatives for introduction of Disabled Youth Programs
2016	Cisco Networking Academy: Instructor recognition Award
2017	CompTIA - CAPP Academic Partner of the Year CompTIA - Workforce Development Academic Partner of the Year CompTIA - Outstanding Leader award

EMPLOYABILITY PROGRAM IN THE NETHERLANDS

T-SystemsNetherlands deliberately encourages its employees to invest in their professional development and position themselves as experts in their individual fields. This is reflected in the company's Employability Program.

T-Systemsadvocates lifelong learning and continuously raising the awareness of our employees for sustainable employability on the internal and external labor markets. This is achieved by offering relevant tools, internal mobility, and opportunities for our staff.

In 2017, we introduced the career check for all employees. This is a program employees can participate in once every three years and undergo a career health check. They work together with an external coach and are offered career interviews, social media training, presentation skills, coaching on setting up a career/development plan, and support for achieving their goals. We have received very positive feedback from our staff about this opportunity.

EMPLOYEE DEVELOPMENT AT HRVATSKI TELEKOM

Our professional education program "HT Academy" and unlimited availability of digital learning platforms enable all our employees to participate in a rolling program of skill enhancement.

Talent Development

In 2016, we launched our new talent management program "Top Talent" with the aim of retaining and motivating our key people, and high-potential staff. Manager nomination and assessment center results were used to identify 105 talented high-flyers with expert or leadership career potential out of larger pool of employees. The high-flyers participated in targeted development activities over a period of 1.5 years. In 2017, the talent program for the first generation of talents was successfully completed. By the end of 2017, 30 % of these top talents had been promoted to a more complex or a managerial role at Hrvatski Telekom.

Leadership Development

From 2016, all managers in B-1 positions have been involved in a tailor-made leadership program. The program started with assessment center as a quality baseline for identifying skill gaps and continued with seven targeted two-day workshops consisting of a range of self-help activities for attendees. The program came to an end in November 2017and the majority of attendees evaluated it as an exceptional opportunity for development of personal skills, experience sharing, and networking.

In 2017, a dedicated development program was set up for mid-level managers concentrated on typical challenges for this target group. The program was launched in Q4 2017.

DIVERSITY AND EQUAL OPPORTUNITIES

Diversity and equal opportunity are essential not only for a stable society but for a company as well. People from approximately 150 countries, women and men, young and old as well as people with different abilities and cultural backgrounds, work together effectively at Deutsche Telekom. This diversity helps us come up with the best ideas and products in global competition.

GOALS	MEASURES	MEASURING SUCCESS
› Encouraging international diversity and intercultural experiences › Filling 30 percent of management positions with women	› Fair Share initiative to increase the number of women at our company › Work-life balance offers › Multiplier and mentor programs for experts and managers › Action plan to promote inclusion › Entry-level training scheme for disadvantaged young people › Job rotation and international talent and leadership programs	› Percentage of women at the company › Percentage of women in managerial positions › Percentage of employees working part-time or on parental leave › Percentage of employees with disabilitie › Percentage of disadvantaged young people starting an apprenticeship › Diversity in HR development programs

SUPPORTING DIVERSITY

Our aim is to promote and benefit from the diversity of our employees as a source of creativity and innovation. That is why we offer our employees numerous opportunities to grow personally and professionally, regardless of their gender, age, sexual preference, health situation, ethnic background, religion, or culture.

Our Group-wide Diversity Policy, Guiding Principles, and Employee Relations Policy as well as our "Code of Human Rights & Social Principles" form the foundation of our commitment. We are also a founding member of the Diversity Charter association.

Equal opportunity is a particularly important issue for us - one for which we have been fighting for more than two decades. Our goal is to increase the number of women in expert and managerial positions: We want to fill 30 percent of leadership positions in middle and upper management worldwide with women. To this end, we launched the Fair Share initiative. On December 31, 2017, the percentage of women in middle and upper management was 25.4 percent similar to the previous year; the share of women in our Group's Supervisory Board was 45 percent (previous year: 40 percent).

Our commitment to integrating refugees into the labor market also promotes diversity within our company. We offer entry opportunities by means of internship, training, the "Internship PLUS Direct Entry" pilot project, or direct entry into an expert or managerial position.

As early as during the hiring process we emphasize diversity and consider options other than just traditional educational routes. Good examples of this are our entry-level training scheme for young people who are disadvantaged in terms of their social and educational background and our part-time apprenticeships/degree programs for single parents.

We support an effective work-life balance with an extensive work-life portfolio to allow our employees to realize their abilities in the best possible way. This includes daycare offers and assistance with caring for family members; these offers exceed legal requirements. Examples include different options for reducing working hours, the lifetime work account, and guaranteed return to full-time work. As of December 31, 2017, 13.6 percent of employees covered by collective agreements and 20.4 percent of Deutsche Telekom civil servants throughout Germany were currently working part-time. The number of disabled employees working for us in Germany puts us well over the statutory quota of 5 percent.

We offer multiplier and mentor programs to establish managers as role models and ambassadors who encourage diversity. Many of our employees have become actively involved in addressing various aspects of diversity, for example as members of internal initiatives such as queerbeet, a network of lesbian, gay, bisexual, and transsexual employees, or of the numerous women's networks that have been established within the Group. In 2015 we initiated a Group-wide campaign on unconscious bias, which we continued in 2017. Since then we have been increasing appreciation for diversity within the Group through explanatory videos and digital workshops.

We regularly assess the effectiveness of our measures for encouraging diversity and internally publish the findings on platforms such as Fair Share and the Deutsche Telekom work-life report. We complied with the new legal requirements stipulated by the Act to Promote Transparency of Pay Structures with a separate remuneration report as an annex to the 2017 management report.

At the start of 2018, the T-Share was included in the global and cross-sectoral Bloomberg Financial Services Gender-Equality Index (BFGEI). Bloomberg is a U.S. information service provider that primarily provides financial data. The Index acknowledges a total of 104 companies that promote gender equality at work. At the same time, the Index provides investors and organizations with aggregated, standardized data about the percentage of women and men employees at companies and about specific offers for employees, social commitment to equal opportunity as well as the product and vendor structure. The analyzed data refer to the 2016 financial year.

FIFTH GERMAN DIVERSITY DAY: MANAGERS DISCUSS DIVERSITY AT WORK

The **Diversity Charter** is an independent economic initiative that boasts the participation of 2,600 companies and institutions in Germany. The Charter's goal is to create a work environment free of prejudice. All employees deserve respect and appreciation – regardless of gender, nationality, ethnic origin, religion or belief, disability, age, sexual orientation and identity. Deutsche Telekom is a founding member of the initiative. As in past years, we participated in the fifth nationwide German Diversity Day in 2017. Together with 120 managers from partner companies from the Rhine-Ruhr network, we exchanged information during a meeting on topics such as "Working World 2030," "Unconscious Bias," "Cultural Skills," and "Flexible Working Hours" and discussed the interests of the LGBTI (= Lesbian, Gay, Bisexual, Transgender, Intersexed) community.

ACTION PLAN FOR INCLUSION YIELDS INITIAL SUCCESS

In 2017, more than 7 percent of Deutsche Telekom employees Group-wide were either disabled or have equivalent status. This number was higher than average compared to other private and public-sector employers and thus remained at a high level. In 2016 we introduced the "Living Diversity – Inclusion@DT" action plan. This plan helps implement the UN Convention on the Rights of Persons with Disabilities and yielded initial success in 2017. Deutsche Telekom's good examples were honored with the first-time-ever bestowing of the Inclusion Award. As of September 2017, the town hall meetings and the HR Business Talk are being translated by sign language interpreters and transmitted live throughout the company on an additional channel.

CAREER WITH CHILDREN PROGRAM STARTED FOR A THIRD TIME

Our Career with Children mentoring program started up again in April 2017. Potential junior employees for technical and managerial positions from various Group business units in Germany are coached before, during, and after their parental leave by an experienced manager in their role as mentor. They amass new technical and methodological competencies "in tandem" and benefit from participating in the program's network. The third round of the Career with Children program saw the training of 31 tandems. The program was also supplemented by web-based learning modules on various topics. More than 90 percent of participating junior employees and two-thirds of the managers are female. The program lasts 22 months and ends in January 2019.

TRAINING PROGRAM PREPARES EMPLOYEES FOR THE SUPERVISORY BOARD

In 2014 we became the first DAX company to develop a training program to prepare employees for supervisory board positions. The program was developed in collaboration with the European School of Management and Technology (ESMT) . We are particularly interested in encouraging women to take on supervisory board positions. In addition to information on the traditional activities of supervisory board members, the training also gives insight into practical experiences presented by supervisory board members, case studies from the Group, and a simulated supervisory board meeting. So far we have trained a total of 64 potential supervisory board members, around half of whom work at business units outside of Germany. Ten women who have completed the program were appointed to a Deutsche Telekom supervisory board.

A more extensive workshop for former program participants took place in Berlin in October 2017. They were trained in various subjects such as corporate governance, cyber security, and startup investments as well as ethical matters.

COMMITMENT TO INCREASING THE NUMBER OF WOMEN IN MANAGERIAL POSITIONS

Our goal is to have women occupy at least 30 percent of positions in middle and upper management. To this end, we have initiated numerous measures: expansion of our work-life balance offer by means of parental leave models, flexible working hours, and childcare programs, a mentoring program for supervisory board candidates, targeted recruiting of female talent, for example through the Talents@Telekom talent platform, and the "Fair Share" initiative started in 2010.

This allowed us to continuously increase the share of women in management positions – from 19 percent in 2010 to 25.4 percent on December 31, 2017. With 45 percent on the Group's Supervisory Board, we have already surpassed our own goal as well as the statutory gender quota introduced in Germany on January 1, 2016. Our quota for women, which we want to achieve by the end of 2020, also applies to the two levels beneath Board of Management level, the management of the national companies, and the internal supervisory boards in Germany. With these efforts, we are significantly surpassing the statutory regulations in effect in Germany since 2015.

SPONSORSHIP OF “EVERY WOMAN IN TECHNOLOGY” AWARDS IN GREAT BRITAIN

T-Systems Limited partnered with Everywoman in 2013 and is now an active member of the network. Everywoman is a membership organization that has championed the advancement of women in business since its foundation in 1999. It works alongside companies looking to develop and retain a pipeline of female leaders who want to advance themselves and others.

In 2017, we rebranded our own Everywoman community – which is now known as Diversi-T. It has a broader focus on ensuring that T-Systems is a truly inclusive environment where all diversity issupported and championed. The aim of the network is to help staff connect and stay inspired by providing the opportunity to network internally and externally. There are also opportunities to attend in-company webinars, bi-monthly meetings and an annual event to hear and learn from each other and from other tech companies leading in diversity.

As part of our commitment toDiversi-T, the Board and all people managers received training in unconscious biasand how this can affect recruitment, personal development and other core processes. The most positive outcome of this training was to allow the conversation on diversity and bias to becomemore open.

While our Everywoman Program has evolved into Diversi-T, we are still very committed to helping to close the gender gap in the ICT industry and attend the “Everywoman in Technology” awards each year taking some of our customers with us to help build our brand and maintain a broad client relationship. The awards play a vital part in highlighting role models whose stories and achievements demonstrate to those young women and girls that they too can achieve great success if they opt to forge a career in IT. With this in mind, T-Systems sponsors the “rising

star" award for women in tech under the age of 26. Christoph Rode, MD of T-Systems Limited sits on the judging panel and will present the award on the night.

T-Systems views the Diversi-T Program as an important part of its strategy and will continue to support it in 2018.

SUPPLIERS

We are systematically working to create a sustainable ICT supply chain. Our efforts are based on trusting, long-lasting relationships with our suppliers as well as tried-and-true tools, methods and measures.

SUSTAINABLE PROCUREMENT STRATEGY

There are still places in the world where human rights are not a respected. We may be exposed to country- and supplier-specific risks through our global procurement activities; these include, for instance, the use of child labor or poor local labor and safety conditions. Compliance with human rights is very important to our Group. This applies both internally within our company and to our business partners and suppliers as well. To also ensure compliance with human rights outside of our Group, we expressly require our over 30,000 suppliers in more than 80 countries to assume this responsibility as well.

GOALS	MEASURES	MEASURING SUCCESS
› Implementing a sustainable procurement strategy	› Standards and guidelines › Group-wide implementation by the Sustainable Procurement Working Group › Employee training courses › Stakeholder involvement › Established escalation procedure for serious cases	› Sustainable Procurement ESG KPI › Sustainability rankings

MANAGING SUSTAINABILITY IN PROCUREMENT PROCESSES

We have been working to improve sustainability throughout our supply chain for many years. We have laid the foundation for this with our sustainable procurement strategy: We adhere to principles for socially and environmentally friendly procurement throughout the Group and manage our processes with the help of internal and external performance indicators and management tools.

Our sustainability criteria therefore apply to the entire procurement process, i.e. from the initial request to contract signing.

Fundamental norms and standards

We have defined minimum social and environmental standards for our corporate governance through our Guiding Principles and voluntary commitments. We also require our suppliers to comply with these standards. To this end, we use our Supplier Code of Conduct, which is an integral component of our suppler contracts. This Code of Conduct makes reference to the following Group policies:

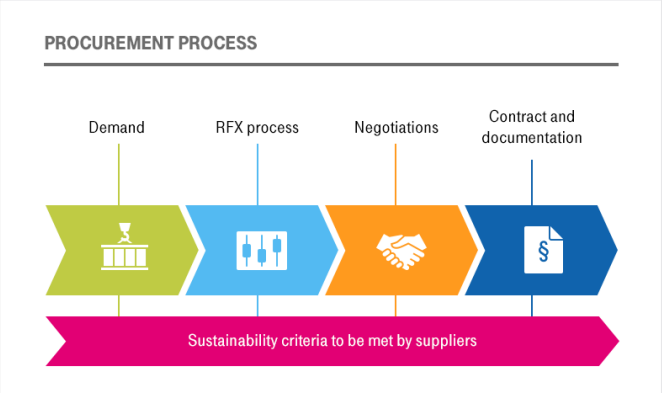
- Our Group-wide Code of Conduct and
- The document "Code of Human Rights & Social Principles" (previously: Social Charter img)

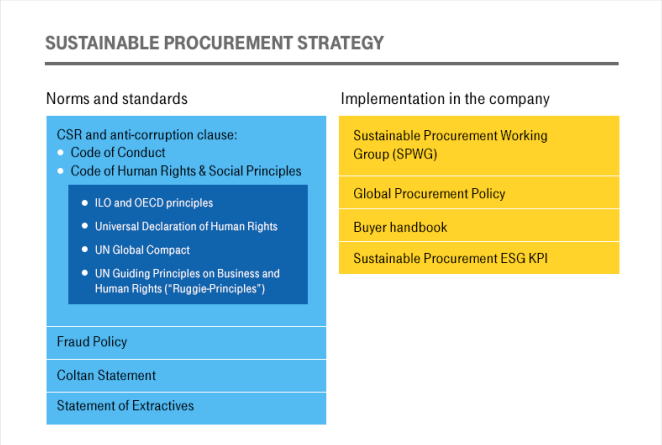
In November 2017 we underscored our commitment to human rights and developed our Social Charter further into the "Code of Human Rights & Social Principles".

The following guidelines are also binding for our suppliers:

- The Anti-Corruption and Bribery Policy
- The Fraud Policy
- The Statement on Extractives
- The List of banned substances

With our Supplier Code of Conduct we have made a commitment to complying with the fundamental principles and standards set forth by the International Labour Organization and the Organisation for Economic Co-operation and Development as well as with the Universal Declaration of Human Rights and the UN Global Compact. We regularly check compliance with the Supplier Code of Conduct among our strategic suppliers.





Entrenchment in the company
Our sustainable procurement strategy is based on our CR strategy and has been effectively incorporated into our procurement processes. The Sustainable Procurement Working Group (SPWG img) ensures Group-wide implementation. The members of the SPWG are available to assist all our employees in all sustainability-related procurement matters. The heads of the CR and Procurement departments are jointly responsible for the implementation of sustainable procurement practices. They report directly to the Board of Management member for Human Resources and Finance, respectively. Our Chief Human Resources Officer is responsible for supply chain management as well as for implementing the Global Compact [Info icon] principles regarding human rights and work standards. An established escalation process calls for decisions to be made at Board of Management level in serious cases.

We have also specified sustainable procurement requirements for the BuyIn Joint Venture between Deutsche Telekom and Orange. To this end, both companies created a joint supplier code. The code describes the high ethical, social, ecological, and human rights expectations and requirements for our suppliers.

We have incorporated our sustainability principles into the Group's Global Procurement Policy to provide orientation for our Procurement employees. The procurement practices set forth in the policy provide specific guidelines for rocurement in Germany and serve as recommendations for our national companies. An e-learning tool is available to our employees throughout the Group for training purposes. This learning offer is available to our buyers and all other interested employees. It describes how sustainability principles should be implemented in day-to-day business, among other things. Our new buyer handbook provides an overview of which CR criteria need to be taken into account during which part of the procurement process.

KPI to promote sustainability
We measure and manage our sustainability performance in our procurement activities with the "Sustainable Procurement" ESG KPI. This KPI measures the ratio between the procurement volume we receive from suppliers whose compliance with social and environmental criteria has been verified through self-assessments, E-TASC img, or social audits, and our total procurement volume. We accomplished our goal of covering 80 percent by 2020 as early as 2016. We want to maintain this target until 2020. What's more, we have established two other ESG KPIs for managing our procurement activities. On the one hand, we want to increase the order volume that is covered by the CDP Supply Chain Program. On the other hand, we want to increase the share of CR-classified suppliers among our TOP 200 suppliers. Qualification tools include self-assessments, audits, sustainability workshops for suppliers, and supplier development programs. In the future, we will be focusing even more on monitoring risky material groups/suppliers with the help of suitable management tools.

Scores in sustainability rankings
Every year leading rating agencies measure the sustainability performance of large enterprises. Deutsche Telekom scored 72 out of 100 points in the supply chain management category of the 2017 RobecoSAM Corporate Sustainability Assessment. Although we were unable to repeat our excellent performance of last year (98 points) due to new issues and a changed evaluation method, we remain one of the leading companies in the ICT sector. We are continuously working on improvements in our supply chain, thereby securing our leading position and expanding it.

MANY PLAYERS, ONE GOAL: FORUM ON SUSTAINABILITY IN SUPPLY CHAINS
In January 2017 the Joint Audit Cooperation (JAC) organized a dialog event in Xi'an, China. About 130 representatives from ICT companies, international NGOs, CR organizations, auditing firms as well as the world of science discussed how to promote the development of a more sustainable supply chain for ICT products. They especially focused on the supply chain aspects of working hours/wages, health and safety, the environment, and ethics. JAC is an alliance of currently 17 telecommunications providers; Deutsche Telekom is a founding member.

Among other things, the following results were achieved at the event:

- JAC member companies and suppliers should commit to going beyond merely fulfilling minimum requirements in order to empower management and employees on site to drive improvements.
- Cooperation between the JAC, suppliers, and local authorities offers opportunities to train employees and management in regard to realistic and understandable sustainability goals.
- During audits, more focus should be placed on aspects such as social dialogue with stakeholders.

SUSTAINABILITY IN PROCUREMENT ONLINE TRAINING
In 2017 we revised and updated the Sustainability in Procurement e-learning tool. A short video summarizes the most important information and measures in Procurement with regard to sustainability.

And it's not only our own employees whom we train on the topic of sustainability. Our business partners and suppliers also receive training within the scope of our supplier development program.

SUPPLY CHAIN MANAGEMENT

We maintain business relationships with more than 30,000 suppliers in over 80 countries. Our relationships with suppliers are based on trust and dialog combined with monitoring and providing concrete support for the implementation of sustainability standards. We have a variety of tools, methods, and measures in place to help us improve the sustainability of our supply chain. Our basic aim is to recognize the cause of any problems and to work closely together with our suppliers to resolve them.

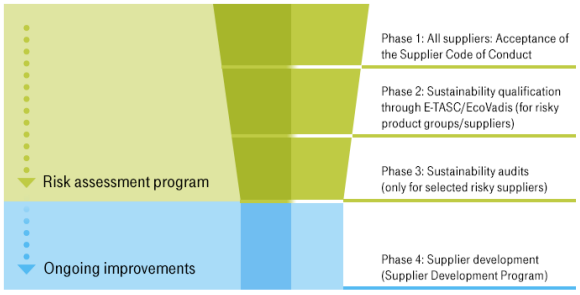
GOALS	MEASURES	MEASURING SUCCESS
› Increasing the share of suppliers audited for sustainability	› Weighting sustainability aspects at 10 percent for bids › Supplier Code of Conduct (SCoC) › Supplier risk analysis › Supplier surveys and self-assessments › Supplier evaluation and development › Escalation process for violations	› Social Audits › Sustainable Procurement ESG KPI

IMPROVING SUSTAINABILITY IN THE SUPPLY CHAIN

Depending on the development phase of the supplier relationship, we use different tools to make our supply chain more sustainable. When selecting a new supplier, the topic of sustainability is included in the decision-making process with an importance of 10 percent. This creates strong incentives for suppliers to make their business more sustainable and to offer more sustainable products and services.

We also use a four-level approach to minimize risks and encourage our suppliers to improve their practices. The funnel chart illustrates the process. In the first step, the pre-qualification, we obligate all of our suppliers to acknowledge our Supplier Code of Conduct (SCoC), which places strict ethical, social, ecological, and human rights requirements on our suppliers. We conduct a risk analysis to identify suppliers with a particularly high risk with regard to these aspects. We require strategically relevant or high-risk suppliers to provide us with comprehensive self-disclosures. They can provide this information to us using the E-TASC (Electronics-Tool for Accountable Supply Chains powered by EcoVadis) system. Our experts then assess the self-disclosures as well as additional background information. We take things a step further in our relationships to certain suppliers that exhibit a higher CR risk and conduct on-site audits (2017 audit results) (step 2).

RISK MINIMIZATION AND SUPPLY CHAIN MANAGEMENT



In 2017 we conducted 89 on-site assessments (audits) on direct and indirect suppliers. We let the supplier know the approximate time of the audit in advance ("semi-announced audit"). This is necessary to make sure that relevant representatives and employees in key functions are present for the audit.

In doing so, we focus not only on Deutsche Telekom's direct suppliers but also on downstream suppliers as much as possible. We also boost the effectiveness of our audits by collaborating with thirteen other companies in the Joint Audit Cooperation (JAC). Due to the growing number of JAC members, the intersection of audited suppliers is also increasing, with multiple audits for individual suppliers being prevented.

We employ the "quality over quantity" principle when auditing suppliers. That is why we focus on some 250 strategically relevant and particularly risky suppliers among our more than 30,000 suppliers worldwide. We aim to audit these suppliers at least every two to three years.

We do not require our suppliers to obtain external environmental or social certificates. Based on our auditing experiences, however, the majority of our relevant manufacturing suppliers have an external "Environment" and "Social Accountability" certificate pursuant to ISO14001 and SA8000 or comparable management systems. Verification of important social and ecological aspects as well as fundamental human rights during our audits is in line with internationally recognized guidelines and standards such as the ILO Labour Standards, the UN Guiding Principles on Business and Human Rights, and the OECD Guidelines for Multinational Enterprises.

Based on all available sustainability-relevant information (from the E-TASC information system, our own research, audits, and pre-qualification results), we classify and evaluate suppliers according to CR criteria (step 3). This is done using supplier scorecards, which let us assess a supplier's sustainability performance and compare them with other suppliers at a glance.

We work closely with our suppliers to address and resolve any acute problems that are identified. The subsequent process for improving the sustainability performance of these suppliers aims at long-term, continuous progress. This will primarily take place through our supplier development program (step 4).

In cases of significant disregard of our requirements, we initiate an escalation process to effect fast resolution in accordance with our sustainability standards. If employees have concerns along our supplier chain regarding compliance with laws, internal guidelines, and standards of conduct, they can report these anonymously using our whistleblower portal.

TWO COMPANIES, ONE STANDARD: NEW SUPPLIER CODE FOR THE BUYIN JOINT VENTURE

One of the goals of the BuyIn procurement joint venture between Deutsche Telekom and Orange is to ensure a sustainable supply chain. To this end, both companies introduced a joint Supplier Code of Conduct (SCoC) in 2017. It specifies joint principles and values in the corporate responsibility area and sets forth strict ethical, social, ecological, and human rights expectations and requirements for suppliers.

This Code can obviously not replace the laws and regulations of countries where our suppliers are active. Rather, its aim is to facilitate compliance with these laws and regulations and guarantee that they are implemented faithfully and effectively. As of July 2017, the Code applies to all procurement activities of Deutsche Telekom, Orange, and the BuyIn joint venture, that is:

- All current contracts (new contracts)
- Contract changes such as extensions and additional negotiations
- Project negotiations (based on framework contracts of all types – except catalog call-offs)
- Individual orders

The Supplier Code is a fixed component of the General Terms and Conditions/General Terms and Conditions for Purchasing. All new suppliers must accept it within the scope of the supplier onboarding process.

DEMAND AND PROMOTE: OUR CR DEVELOPMENT PROGRAM FOR SUPPLIERS

We collaborate as partners with our suppliers to make sure they are able to meet our high sustainability criteria with measures like our development program for key strategic suppliers. Under this program we work together to come up with solutions for topics such as environmental protection, working hour regulations, and occupational health and safety. Better working conditions have a positive influence on employee loyalty and motivation, raise productivity, and improve the quality of products; a clear win-win situation for our suppliers as well as for our company. In April 2017 we welcomed three new suppliers in China to the program, which now counts 14 suppliers. The new participants are currently working on creating their CR improvement plans.

Improvements achieved in 2017

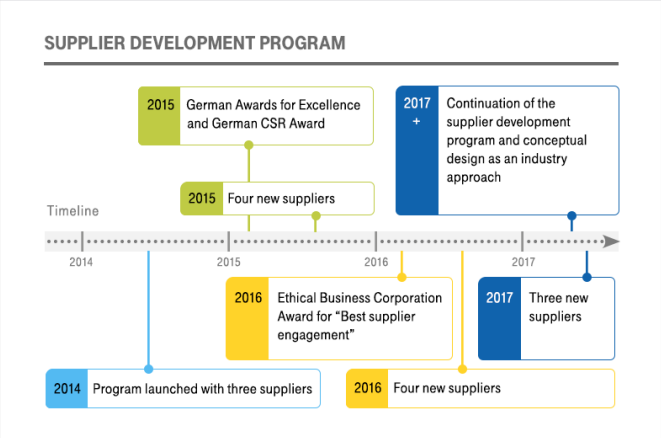
The program's successes are tangible. During the operational review meeting in November 2017 in China, we evaluated last year's results together with the suppliers. As in previous years, the program suppliers achieved significant improvements*, such as the following:

- One supplier reduced its CO_2 emissions by 8.8 percent.
- Another supplier decreased staff churn by 7.4% thanks to improved working conditions.
- One supplier introduced a CSR management system with goals and concrete action plans.
- One of our Chinese suppliers, who manufactures set-top boxes, decreased monthly overtime hours from 87 to 71 hours per week.
- Another supplier of smartphones was able to reduce its electricity consumption by 21 percent and increase recycled waste by 11 percent.
- A direct supplier who manufactures network hardware housing improved its health and safety measures, which resulted in decreased absences due to workplace accidents by 35 %.

The suppliers were once again honored for their performance in 2017. Significant and meaningful improvements of social or ecological aspects by our suppliers resulted in notable cost savings in 2017. Since the start of the program, total savings amounting to double-digit millions (in euros) could be achieved.

* All figures and success stories pertain to one year and to specific suppliers (i.e. the above numbers do not represent cumulative statistics for all program participants).

The diagram shows the areas in which we audit the suppliers participating in our program. Using the results, we work with them to develop a plan for remedying any issues. Suppliers receive support from Deutsche Telekom experts as well as professional external consultants in applying these measures. All activities and results are documented so that we can gauge the effectiveness of the measures employed. These are corrected, if needed.



We want to establish our supplier program as an industry-wide approach in 2018 using the GeSI ICT sustainability initiative. Participating suppliers will be trained using a web-based tool. After completing the training successfully, they will be able to use the tool independently so that they can in turn train their own suppliers. This way we hope to achieve larger economies of scale.

AWARD FOR CLIMATE PROTECTION ALONG THE SUPPLY CHAIN

The non-governmental organization CDP regularly assesses the climate protection activities of companies worldwide and compiles an index of leading companies called the A List. Suppliers publish their CO_2 emissions within the scope of the CDP supplier program. We ourselves act as a supplier to our customers. Just like the previous year, we were once again among the leading companies in 2017 and received the top grade "A."

We invited 195 suppliers in 2017 (compared to 181 in 2016) to participate in the CDP Supply Chain Program. These suppliers cover 73 percent of our procurement volume. A total of 109 suppliers took part in the program (compared to 108 in 2016). They cover 66.4 percent of the procurement volume (2016: 65 percent).

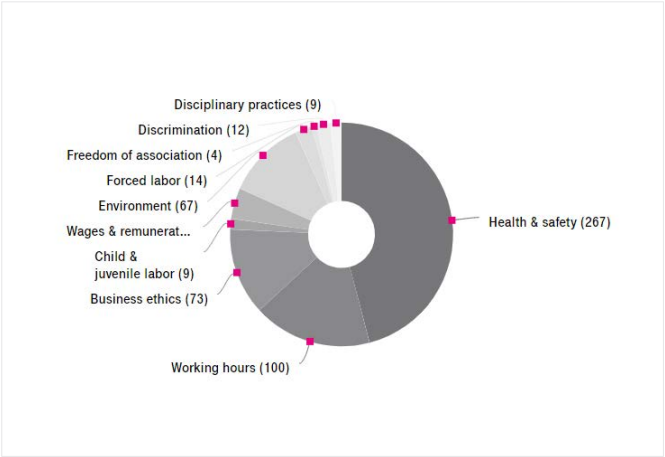
In 2017 we were also again included in the A List based on the CDP's general ranking.

2017 AUDIT RESULTS

In the audit program, which was established and is controlled at the Group level, a total of 89 audits was carried out in 2017. Like in the previous year, our activities focused on suppliers in Asia, particularly China, South Korea, Thailand, and India. We also conducted social audits in Latin America and Eastern Europe.

Audited suppliers included manufacturers in the areas of IT hardware, software, and services, as well as networks and devices. No cases of corruption or bribery nor any critical violations of compliance policies or the right to intellectual property were found during the audits.

THE 2017 AUDIT RESULTS AT A GLANCE



Legend: Area (Number of violations)

DETAILED RESULTS

We do not audit all of our suppliers (over 30,000) equally, but instead focus on strategically important and/or high-risk supplier groups. We focus on roughly 250 suppliers that are regularly audited every two to three years. The majority of these auditsis conducted within the scope of the Joint Audit Cooperation (JAC).

- Labor standards
- Social standards
- Living standards
- Environmental requirements

The JAC Guidelines require suppliers to grant their employees the freedom of association and the right to collective bargaining, as well as a healthy and safe working environment. The following minimum requirements are applicable regarding working hours: a maximum of 48 working hours per week, a maximum of twelve hours of overtime each week and one day off after six consecutive days of work. We also demand a fair wage that enables employees a decent standard of living. Compliance with all these requirements is reviewed regularly during our on-site audits. This also includes inspection of the features and quality of the working, sleeping, and cafeteria areas.

We do not require our suppliers to obtain external environmental or social certificates. Based on our audits, however, the majority of our relevant manufacturing suppliers have an external certificate confirming compliance with ecological and social standards. Reviews of the major ecological and social aspects during our audits are compliant with the relevant international regulations and standards, such as the ILO core labor standards, the UN Guiding Principles on Business and Human Rights, and recognized management systems such as ISO14001 and SA8000.

Of the 89 suppliers we audited in 2017 (nine of which were in accordance with the validated audit processes of the Responsible Business Alliance), around 29 percent (26 audits) were direct suppliers and 71 percent (63 audits) were tier 2 and 3 suppliers – that is, indirect suppliers.

In the course of the audits in 2017, a total of 581 violations of Deutsche Telekom's supplier requirements were discovered. In the process, a total of 634 violations were corrected in 2017, including several open improvement measures from previous years. Among the violations were 22 unacceptable incidents and 156 critical findings; 94 violations were rectified. Examples of unacceptable and critical violations, as well as introduced improvement measures, are published here. Critical findings were discovered at 68 suppliers in the areas of occupational health and safety, environmental protection, labor practices, working hours, and wages and performance-related remuneration. There were no critical findings in the business ethics area. Like in past years, most of the violations were related to occupational health and safety (46percent, compared to 47 percent in 2016), followed by working hours and wages with 17 percent (12 percent in 2016). The business ethics area took the third spot, with 13 percent (18 percent in 2016).

EXAMPLES OF PROBLEMATIC FINDINGS

Area	Findings at suppliers	Initiated improvements	Status (end of 2017)
Discrimination	The „New Employee Orientation Health Check Standards" showed that the factory did not hire pregnant women. The company's management stated that they did not demand pregnancy tests as part of the application process, but still rejected visibly pregnant women.	This practice was discontinued and management issued an official confirmation of this fact.	Completed
	In its job advertisements, the factory mentioned gender and age as follows: „Technician: Older than 23". „Operator: Male, age 18-28". „QC: Age 20-27". „Warehouse worker: Age 20-27".	In the case of public job advertisements, the factory will not define any requirements for age, gender, nationality, etc.	Ongoing
Environmental protection	According to an interview with management and a review of the relevant documents, the audited factory had neither inspected the environmental facilities nor received a permit.	An environmental permit was issued on August 25, 2017.	Completed
	1. The manager for chemicals in the warehouse did not strictly follow the instructions for waste management procedures and had mixed different liquid wastes together in the same container. 2. The manager for chemicals lacks the necessary knowledge about chemicals management, because he does not know that multiple chemicals must not be kept on the same shelf.	1. Employees who are responsible for handling chemicals should undergo training in chemicals management. Each barrel should bear a label with the name of the chemical it contains, as well as other specifications and information about dangers and handling. 2.1 Trained managers for chemical waste in the warehouse should ensure that the requirements of the Hazardous Waste Management Procedure are visible on the waste barrels. 2.2 A list for daily safety checks for chemical waste inspections in the warehouse, including barrel labeling, should be introduced.	Ongoing
Occupational health and safety	No emergency exit signs installed. Emergency exit is not illuminated.	Emergency exits labeled and repaired.	Completed
	The factory does not meet the legal requirements applying to processes for accidents and emergencies.	1. More evacuation instructions for the evacuation drills. 2. Establishment of an additional escape corridor for a warehouse. 3. Establishment of an escape corridor in „Silk Legend".	Completed
	The company instructed its logistics employees in the use of the fire suppression equipment; however, no evacuation drills were held.	The factory carried out an evacuation drill in the workers' dormitory.	Completed
Wages and performance-related remuneration	15 percent of the examined workers did not receive any overtime pay.	The factory has been advised that overtime work should be compensated in accordance with the legal requirements.	Ongoing
Working hours	The weekly hours worked exceed the legally permitted 60 hours.	1. The parameters for overtime work should be defined. 2. The new measures for recording overtime should be communicated within the company. 3. Overtime worked should be reported weekly.	Completed
	The monthly overtime hours worked exceed the legally permitted 36 hours. The weekly overtime hours worked exceed the legally permitted 12 hours.	1. Create a management plan on production capacity, adjustment of production planning, planning of production capacities, and corresponding arrangement of orders. 2. Optimize the production processes and improvement of production efficiency. 3. Hire additional workers.	Completed
	There is no legally prescribed limit on overtime worked.	1. Work arrangements will be changed such that any overtime worked in excess of 48 hours will be strictly on a voluntary business. 2. The factory complies with local, federal, and national laws. 3. The factory will conduct a follow-up every quarter to prevent health problems and accidents caused by overtime.	Completed

RESOURCE SCARCITY AND RAW MATERIALS SOURCING

Production of electronic devices like smartphones is harmful to the environment and requires large amounts of water and energy. Because the production facilities of suppliers and manufacturers are often located in regions where water is scarce or the population does not have sufficient access to electricity, the availability of resources plays a more significant role there than it does in countries like Germany.

Moreover, valuable raw materials like metals are used in producing smartphones and other ICT products. Some metals, including tantalum, gold, tin, and tungsten, are extracted from ores, some of which are extracted in the eastern part of the Democratic Republic of Congo under conditions that are inhumane and/or associated with civil war. The parties involved in conflict in the region use the profit for purposes such as financing civil wars. However, Deutsche Telekom does not manufacture any ICT products itself: We purchase these products from international manufacturers and sell them at our stores, offer them in the context of service provision, or use them in our network infrastructure. We require our suppliers to refrain from using any of these so-called conflict resources. We also support industry initiatives like the Conflict-Free Sourcing Initiative, which work toward a more sustainable supply chain.

GOALS	MEASURES	MEASURING SUCCESS
› Sustainable use of resources and responsible raw material procurement	› Support of the Responsible Minerals Initiative (RMI) › Conflict-free resources integrated into our manufacturer product requirements › Coltan Statement › Statement on Extractives › Research project on recycling tantalum	› Annual reporting

SUPPORTING RESPONSIBLE RESOURCE EXTRACTION

We require our suppliers to protect the environment and use resources responsibly. We have set forth these requirements in the document "Code of Human Rights & Social Principles"; they are also described in detail in our Supplier Code of Conduct. We require our suppliers to provide information on their activities as part of a self-assessment and conduct supplier audits to emphasize the importance of these requirements (audit results). In the scope of the audits, we check whether our suppliers use an environmental management system and how they manage their energy and water consumption, as well as other factors. We also explicitly ask them about their waste management system.

Handling critical raw materials

We collaborate with suppliers and industry initiatives to effect responsible raw materials sourcing. Although we do not purchase any raw materials ourselves, we do require our manufacturing suppliers not to use any conflict minerals or other such resources in their products. Our requirements are expressly and comprehensively set out in our "Coltan Statement" and "Statement on Extractives." These are an integral part of our contracts with manufacturing suppliers. The goal is for both our direct suppliers as well as their sub-suppliers to decrease social and societal risks that could be associated with the mining of resources. We verify implementation of our guidelines regarding conflict resources during our supplier controls as well. As a GeSI member we also actively support the GeSI Responsible Minerals Initiative (RMI). We strongly encourage our direct and indirect suppliers to utilize the RMI tools for ensuring responsible resource procurement.

Tantalum is a conflict resource. Recycled tantalum, on the other hand, is considered conflict-free, Telekom Deutschland is conducting a research project on reclaiming precious metals such as gold and tantalum from outdated network infrastructure components.

TOGETHER AGAINST CONFLICT RESOURCES

Deutsche Telekom has supported the Responsible Minerals Initiative (RMI) since it was founded in 2008 under the name Conflict-Free Sourcing Initiative (CFSI). RMI is the largest business initiative for responsible raw materials sourcing. Its objective is to identify conflict resources and prevent their extraction and sale.

RMI is based on a working group that was founded in 2008 by the Global e-Sustainability Initiative and the Electronic Industry Citizenship Coalition industry associations (Extractives Working Group) to address sustainable raw materials extraction. Since then, the number of metal processing companies and smelters participating in RMI has continued to grow. A total of 255 of these companies have been audited in compliance with the standard audit protocol (as of January 2018).

CROSS-SECTOR EXCHANGE FOR CONFLICT-FREE RESOURCES

In August 2017 we took part in a workshop titled "Conflict Minerals – Transparency in the Supply Chain" given by missio, the international Catholic relief organization in Germany. Experts of the Friedrich Naumann Foundation, the Südwind Institute, the Federal Institute for Geosciences and Natural Resources (BGR) and Deutsche Telekom reported on their experiences. We presented our commitment to raw material recycling with our cell phone collection program and our project for recycling the metal tantalum. The discussion also illustrated that this field is undergoing a lot of upheaval due to the new EU guidelines on transparency in the resource chain.

CLIMATE & ENVIRONMENT

We are dedicated to protecting the climate and environment. To this end, we record and reduce CO_2 emissions along our entire value chain. We are increasing our energy efficiency, using more and more renewable energy, conserving resources and decreasing environmental impact.

CLIMATE STRATEGY

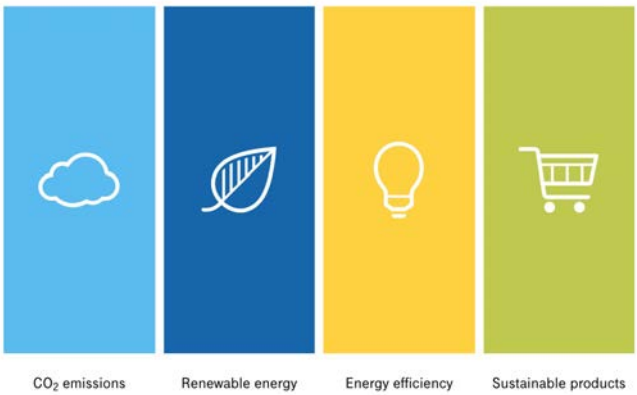
One of our goals is to reduce the negative environmental impact of our business activities. One important milestone is our climate target. By the year 2020, we are planning to reduce the absolute amount of CO_2 emissions we produce by 20 percent compared to base year 2008 (excluding T-Mobile USA). One step in this process is investing in energy-efficient network technology.

And we are concerned with more than just reducing our own carbon footprint. We want to help our customers reduce their CO_2 emissions as well. The GeSI SMARTer 2030 study shows that information and communications technology may be part of the solution in the fight against climate change. Products such as our cloud and mobility solutions help reduce the amount of CO_2 emissions our customers produce.

OUR INTEGRATED CLIMATE STRATEGY

We designed our integrated climate strategy following our Group strategy "Leading European Telco". This is how we ensure that our climate protection measures are closely connected with our core business. Our integrated climate strategy includes four aspects of climate protection: CO_2 emissions, renewable energy, energy efficiency, and sustainable products. For each one of these aspects, we have defined goals and key figures.

The four pillars of our integrated climate strategy



CO_2 emissions

To help us achieve this goal, we record all direct and indirect emissions using the globally recognized GHG protocol. The goal is to reduce our emissions by 20 percent by the year 2020 compared to the base year 2008 (excluding T-Mobile US). We uphold this ambitious climate goal despite the challenges arising from fast growing data traffic and the consequent ongoing network expansion. In order to achieve this, we are focusing on areas with especially high energy consumption, such as our networks and data centers. We have already achieved a moderate reduction in emissions (excluding TMUS) over the past few years. To achieve our goal, we also want to increase the share of renewable energy.

Renewable energy

We are evaluating various options to increase our share in green energy. This includes purchasing energy certificates from renewable sources, generating our own renewable energy such as through the use of cogeneration ("CHP") plants. Some national companies are setting a great example: T-Mobile Austria and OTE in Greece obtained 100 percent of their electricity from renewable sources in 2017. We have introduced parameters throughout the Group that can be used to assess electricity procurement in terms of sustainability. These parameters help us make our energy mix more transparent and increase the share of energy obtained from renewable sources at our company.

Energy efficiency

Because the operation of our network infrastructure calls for a considerable amount of energy, we are investing in modernization and energy-efficient technology. For instance, we are migrating our network infrastructure to IP technology, which is not only more powerful, but also consumes less electricity than existing technologies. In addition, we are working to process data traffic from no more than a few, particularly efficient data centers. In order to measure our progress, we use two key performance indicators (KPIs). They show the relationship between our energy consumption or carbon footprint and transported data volume.

Sustainable products

Many of our products and services provide sustainability advantages. They can help reduce energy consumption and CO_2 emissions, improve healthcare and make logistics more efficient. Since 2016 we have been measuring the amount of CO_2 emissions that our customers can reduce by using our products and services. With our Enablement Factor ESG KPI, we set our emissions in relation to potential savings for our customers in order to evaluate our overall performance in climate protection. Moreover, we use the Sustainable Revenue Share ESG KPI to measure the share of sustainable products. These are products that provide sustainability advantages and that do not entail any significant sustainability risks.

Collaborating for climate protection

Effective climate protection calls for joint efforts on the part of business, politics, science and society. That is why we are involved in a number of German initiatives, such as the 2° Foundation, and international associations. One of these is the Global e-Sustainability Initiative (GeSI). As an industry association, GeSI's vision is to help make society greener and more climate-friendly with the help of ICT solutions.

WORLD CLIMATE CONFERENCE: EXCITING DEBATES AND MODERN INFRASTRUCTURE

In November 2017, the 23rd World Climate Conference took place under the presidency of the Fiji Islands in Bonn. Diplomats, politicians and representatives of civil society came together at the Conference of the Parties (COP). We contributed to the content of the Conference with an event and provided state-of-the-art infrastructure.

Digitalization for climate protection and sustainability

On November 14, 2017, our headquarters in Bonn were entirely focused on climate protection. The real potential of digitalization for climate protection is still being underrated. In order to change this, we have joined our stakeholders for a dialog about "The impact of ICT on climate change – curse or blessing". Along with our partner, the Global e-Sustainability Initiative (GeSI), as well as numerous stakeholders and experts from politics, civil society and corporations, we discussed the opportunities and risks of information and communication technology (ICT) for climate protection. In collaboration with partners, we presented products and solutions for connected and therefore sustainable life and work - for example, relating to e-mobility, Smart City and logistics.

Fiber optics for the climate summit

For the 23rd World Climate Conference in Bonn, Deutsche Telekom provided the technical infrastructure. For the supply of the two temporary tent towns alone we laid over 25 kilometers of optical fiber and copper cables each - capacities that would also suffice for the supply of a small town. Antennas that were installed for the event ensured the necessary wireless capacity. In this way, the park in Bonn where the tent towns were located was equipped with modern, broadband communications technology that will also benefit future events.

The sheer amount of infrastructure that an event with over 25,000 visitors requires can be seen in the following “Netzgeschichte” (network story):

ADDRESSING CLIMATE RISKS

In the context of our integrated climate strategy, we address the environmental impact of our business and determine potential opportunities and risks that exist for us as well as for our stakeholders.

For example, extreme weather conditions as a consequence of climate change can have a negative impact on our business processes and lead to incidents or even network outages. A very real example for this was the storm Friederike, which lead to an outage of more than 600 cross-connect cabinets and over 200 mobile base stations in early 2018. Such failures can massively impact the managementl of rescue operations, if not render them entirely impossible. In order to be able to react appropriately in these cases, our internal "Group Policy on Continuity and Situation Management" defines responsibilities, processes and measures. It also outlines how to handle emergency and crisis situations like floods. In addition, possible consequences of climate change are also taken into account when planning our future business activities. For instance, our network infrastructure is set up to be protected from storm conditions, changes in temperature and high winds.

Climate change also carries financial risks, whether from the introduction of a levy on CO_2 emissions or an increase in energy costs. Our contribution to the mitigation of these risks is that we measure our own energy efficiency and develop measures for improvement.

We also work on the reduction of our own and our customers' and suppliers' CO_2 emissions.

We report to the Board of Management quarterly on current climate risks within the context of our Group Risk Report. You willYou will find more information on risk management in the "Risks and Opportunities” section of our Annual Report.

With innovative solutions, we support our customers in mitigating their carbon footprint or in better adapting to the negative consequences of climate change. Some examples for this are innovative projects in the area of sustainable urban development and mobility, or real-time solutions for agriculture. These do not only help reduce emissions, but also optimize the use of fertilizer, seed and machinery. An increase in crops can also contribute to preventing agricultural areas from expanding, which helps retain valuable rain forest areas.

RECOGNITION OF LEADERSHIP ROLE IN CLIMATE PROTECTION

German Sustainability Prize 2017: Deutsche Telekom AG is Germany's most sustainable large company.

Deutscher Nachhaltigkeitspreis

For our uniform sustainability management, we won the German Sustainability Award in December of 2017. Our commitment to climate protection, for example by operating energy-efficient networks or providing products that help our customers reduce carbon emissions, helped us win the award.

Repeated inclusion in CDP ranking

CDP A LIST 2017 CLIMATE

We made it onto the CDP Climate A List for the second time in 2017. CDP commends companies that report their CO_2 emissions extremely transparently and in detail. Under the CDP, we have reported Group-wide not only Scope 1 and Scope 2 emissions but also Scope 3 emissions from our business operations in Germany and almost all our international companies since 2014.

Finalist for the 2017 German CRS Award

deutscher csr-preis 2017

The German CSR Award is given out annually by the German CSR Forum and celebrates extraordinary performance in the area of CSR (Corporate Social Responsibility) and therefore the social engagement of corporations. In the year 2017, we made it into the final round in the category "CO_2 avoidance as a contribution to climate protection."

CO_2 EMISSIONS

Demand for fast data services with full-coverage availability is growing rapidly. That is why we continue to push the build-out of our infrastructure and increase data transmission rates. Despite constantly growing amounts of data, we are able to remain stable in our energy use due to our efforts to improve energy efficiency - for example in the upgrade of network infrastructure. Other focal points include how we operate our buildings, business trips and our fleet of company and service vehicles in Germany. Our vehicle fleet boasts roughly 24,000 vehicles in Germany and is one of the largest in Europe.

GOALS	MEASURES	MEASURING SUCCESS
› Decrease Group-wide CO_2 emissions by 20 percent by 2020 compared to 2008 (without T-Mobile US, based on metric tons of CO_2)	› Increasing the share of renewable energy › Modernizing and upgrading network infrastructure › Consolidating data centers › Optimizing energy use in buildings › Reducing fuel consumption by streamlining and optimizing our fleet › Reducing business trips and using audio and video conferences	Emissions in metric tons of CO_2 › Scope 1 emissions › Scope 2 emissions (market-based and location-based) Specific emissions › Carbon Intensity ESG KPI › Energy Intensity ESG KPI

PROTECTING THE CLIMATE

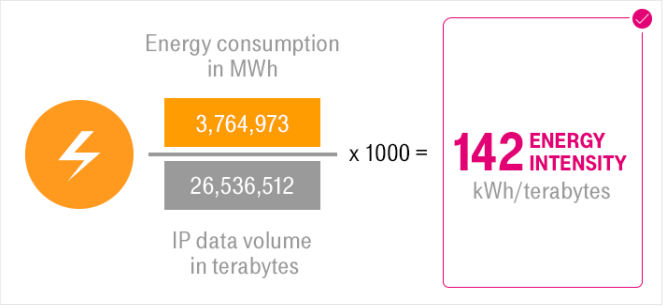
"We assume responsibility for a low-carbon society" is one of the key action areas of our CR strategy. We intend to keep this promise with the help of our Group-wide climate protection target, which was adopted in 2013: to reduce our CO_2 emissions by 20percent (excluding T-Mobile USA) by 2020 compared with 2008. We have specified a variety of measures and developed measurement tools to help us reach this goal.

New method to calculate our climate target

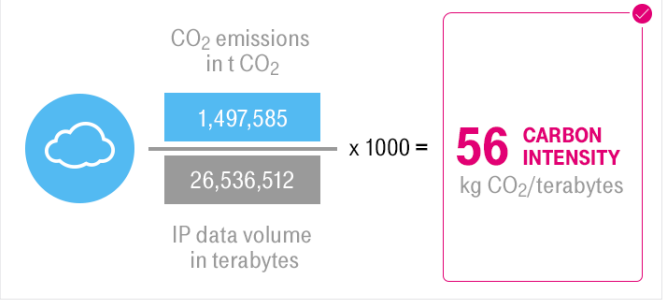
Increasing data traffic and the related network expansion are presenting us with considerable challenges. We need more performance and data centers, but at the same time we want to reduce our carbon emissions and energy use. We are facing this challenge and continue to stand by our ambitious climate goal. We are focusing our activities for the reduction of emissions on areas with especially high energy consumption, such as our networks and data centers. This way, despite increasing data volumes, we have already been able to achieve a moderate reduction in emissions (excluding TMUS) over the past few years. Moreover, we will put a stronger focus on renewable energy. Renewable energy certificates have not yet been taken into consideration in the calculation of our climate target. In the context of our annual climate goal monitoring, we have reviewed and revised the method for the calculation of our climate target. In accordance with the framework of the Greenhouse Gas (GHG) Protocol, we have been calculating our emissions using the market-based method since 2015. We are now applying this calculation method to our climate target. This means that the purchase of electricity from renewable energies through certificates or electricity from low-emission sources can also be taken into account. Consequently, we also adjusted the 2008 baseline to reflect the proportion of renewable energy at that time. The baseline reduced from 2 602 431 metric tons of CO_2 to 1 481 400 metric tons of CO_2. As a result, the climate target will be reduced to 1 185 120 metric tons of CO_2 by 2020, which also represents a reduction of -20% compared to 2008. With this calculation method, we are at the forecasted level for 2017.

This is how we measure our progress

We measure our contribution to climate protection using different key performance indicators (KPIs) and thereby provide transparency to shareholders regarding our progress in realizing our climate strategy. The Carbon Intensity and Energy Intensity KPIs are used to analyze the relationship between our carbon emissions/energy use and the transported data volume. Using data volume as a reference parameter makes it possible to create a direct link to the performance of our networks. The Enablement Factor, PUE and Renewable Energy KPIs also serve the purpose of controlling and providing transparency regarding climate protection.



Data assured by PwC. Data is partly based on estimates, assumptions and extrapolations. The calculation method was adjusted in 2017. Values cannot be directly compared to the previous year.



Data assured by PwC. Data is partly based on estimates, assumptions and extrapolations. The calculation method was adjusted in 2017. Values cannot be directly compared to the previous year.

Direct and indirect emissions

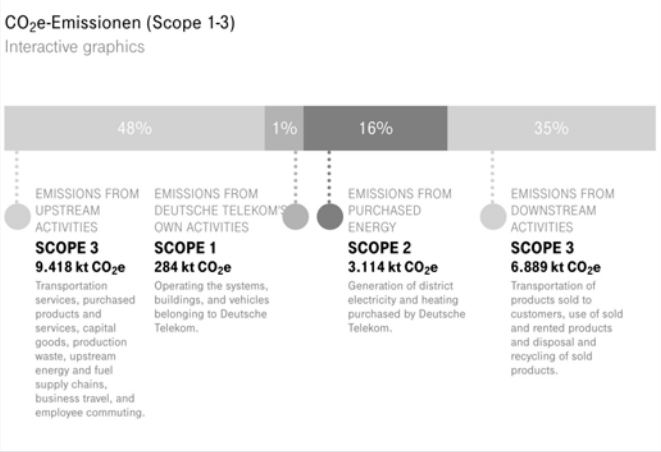
Across the Group, we measure our emissions along the value chain on the basis of the internationally recognized GHG Protocol. This standard distinguishes between three CO_2 emissions categories (Scope 1, 2 and 3). Scope-1 and scope-2 emissions are what we use as the basis for the calculation of ourCarbon Intensity ESG KPI. We break down all carbon emissions in detail in the indicator section.

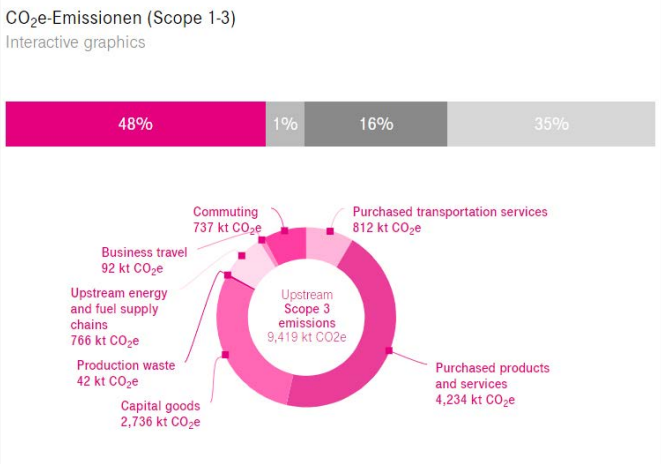
RECORDING SCOPE 3 EMISSION

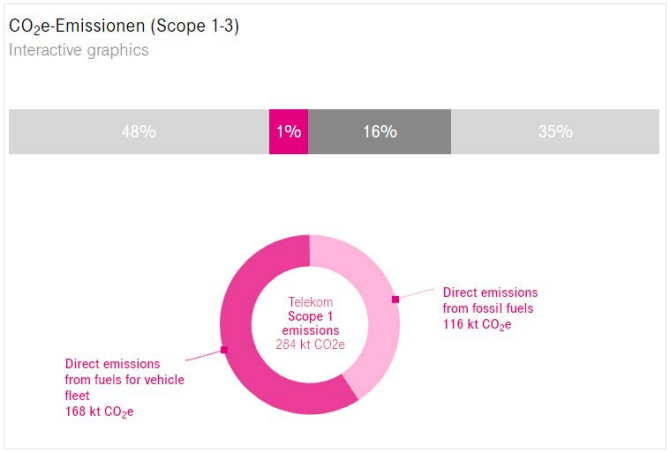
Indirect emissions along the value chain, or Scope 3 emissions, make up the majority of our total emissions. Recording these emissions helps us design targeted measures to reduce our carbon footprint at a corporate and product level.

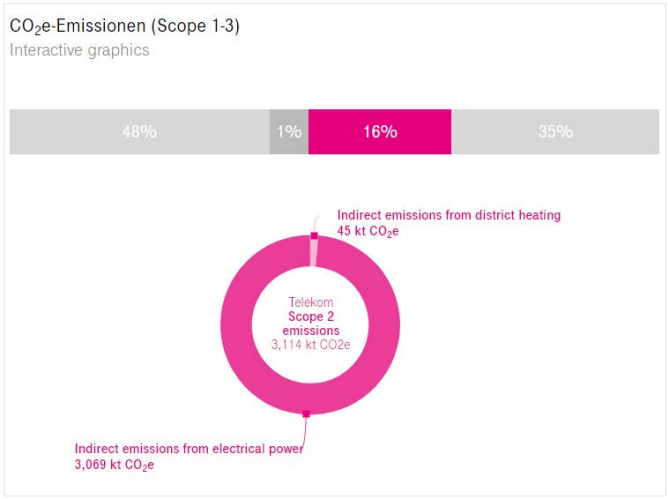
We have been fully disclosing the Scope 3 emissions generated throughout the Group since 2016. They came to 6,013,202 metric tons of CO_2 equivalents in Germany, roughly 23 percent more than in the previous year. The reasons for this increase were more investment in network expansion and positive business growth: increasing client numbers as well as the sale of high-quality services (especially triple-play) resulted in higher CO emissions during use of our services. T-Systems' emissions were included in the Group number for Germany in 2017.

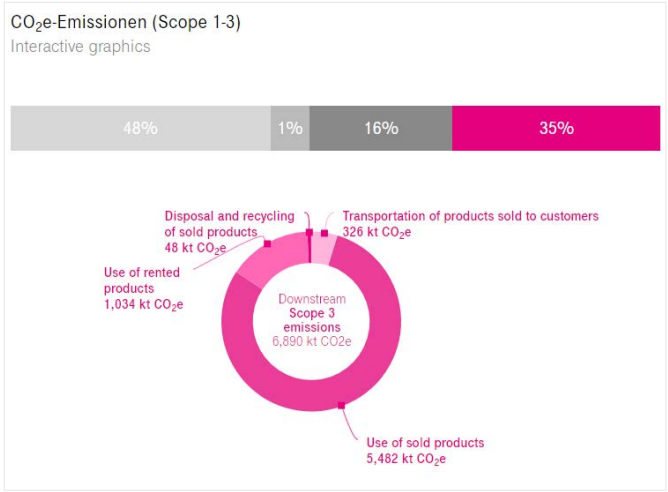
Use of the consumer products we sold and leased as well as energy consumption of the devices used for our services account for the largest part of the Scope 3 emissions – both in Germany as well as Group-wide. Emissions generated by purchasing technology to expand our networks as well as the purchase of devices and other goods and services were significant as well.











The year 2017 marked the first time that, in addition to the national companies in Albania, Macedonia and Montenegro, we also recorded the Scope 3 emissions of T-Systems units, which also contributed to a 27 percent increase of the Group number compared to 2016. The numbers for the USA as well as for a few of the European countries from 2016 were revised upward due to recalculations regarding the purchase of products and services.

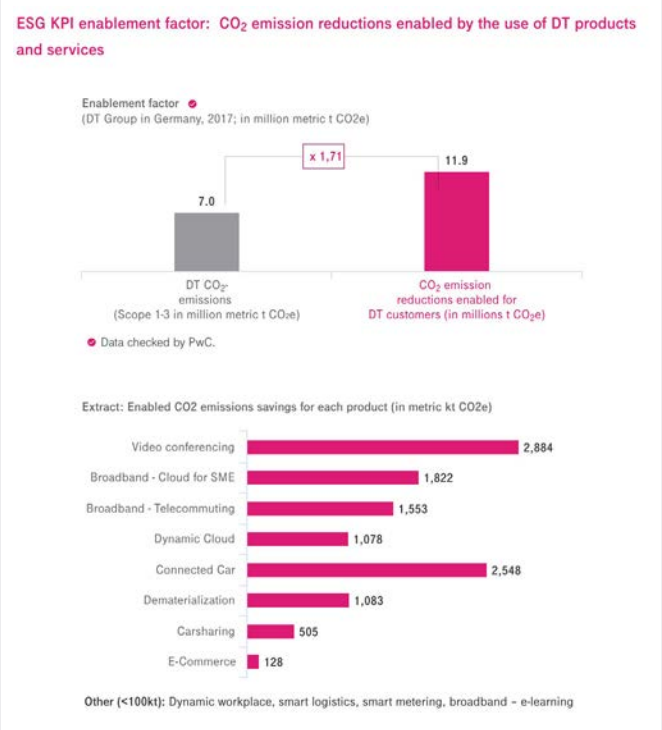
Overview of Scope 3 emissions (t CO_2e)

National company	2016	2017	Comparison year-on-year
Germany (incl. T-Systems)	4,879,850	6,013,202	↗
Hungary	572,533	672,046	↗
Croatia	320,386	363,383	↗
Slovakia	265,095	327,906	↗
Greece	1,243,149	1,049,535	↘
Romania	500,539	660,381	↗
Austria	116,802	142,762	↗
Czech Republic	185,787	226,466	↗
Netherlands	190,656	211,694	↗
Poland	362,078	572,403	↗
Albania		7,507	Documented for the first time in 2017
Macedonia		33,028	Documented for the first time in 2017
Montenegro		20,535	Documented for the first time in 2017
United States	4,217,941	5,768,480	↗
T-Systems (without Germany)		239,195	Documented for the first time in 2017
Total	12,854,817	16,307,523	↗

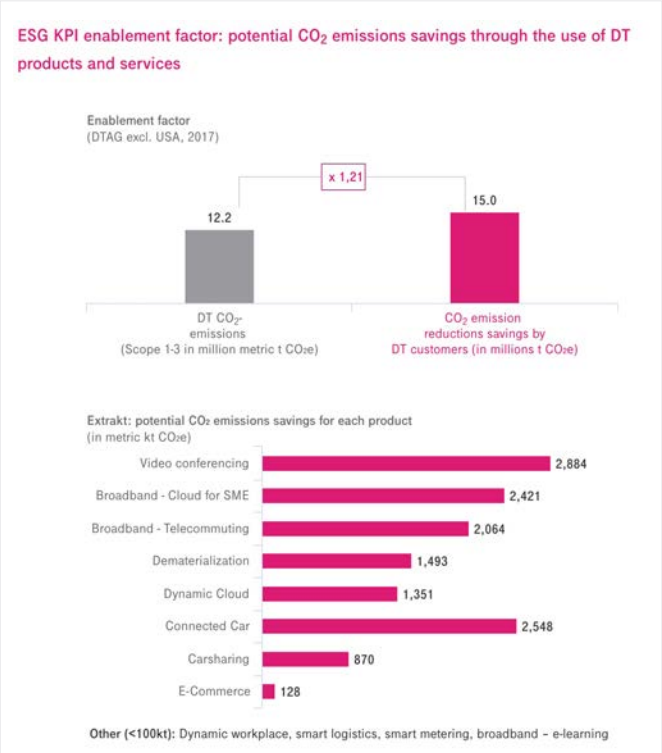
ENABLEMENT FACTOR: CUSTOMERS SAVING ON CO_2 EMISSIONS

Our products and services not only connect people, they also help them reduce their CO_2 emissions. That is why, in addition to calculating our own carbon footprint, we also calculate the positive CO_2 effects facilitated for our customers through the use of our products and services. The ratio between these two figures – the "enablement factor" – allows us to assess our overall performance when it comes to climate protection. We began calculating the enablement factor in a pilot project launched in 2014. We were able to conduct fifteen case studies for our products in Germany in 2017. One study focused on the savings our customers achieved by using our cloud offers and outsourcing their infrastructure to our highly efficient data centers. In addition, we carried out five case studies for Europe.

Our findings: The positive CO_2 effects facilitated for our customers in Germany in 2017 were 71 percent higher than our own CO_2 emissions (an enablement factor of 1.71:1).



In all of Europe (incl. Germany), the savings potential for our customers was higher in 2017 than in the preceding year, with the factor having a value of 1.21 (2016: 0.95).



We always employ a conservative approach with our case studies and in our methodology. This applies to both the emissions reduction realized by our customers and our own emissions generated throughout the value chain. For example, we incorporate all levels of emissions generation when assessing our carbon footprint, including emissions from our own energy consumption (Scope 1 and 2) and also Scope 3 emissions generated by our suppliers and customers. The latter includes even the emissions produced by electricity consumption of our Entertain customers' TV sets.

COGENERATION PLANTS REDUCE CO_2 EMISSIONS

We are using combined heat and power (CHP) plants in addition to the conventional power grid.In the year 2017, we commissioned a new CHP module at the Berlin site. The majority of our 32 units in total (as of late 2017) power our network nodes. The CHP plants convert the energy supplied by gas into electricity and heat. We use the waste heat produced on site to heat our office buildings, which brings overall energy efficiency to a level of up to 90 percent. As a comparison, electricity generated by conventional sources and fed through the general German power grid has an efficiency level of roughly only 40 percent. This is how we can reduce the carbon emissions of our network operation through the use of CHP plants.

Sustainable urban district concept

A local heating pipeline runs from our CHP unit in Berlin to a neighboring school. With the waste heat of the plant, the heating needs of the school and its gym could be covered entirely in 2017. This helps reduce carbon emissions by up to 700 tons a year.

Updated CHPs save additional resources

In October of 2017, we completed the update of two CHP plants. Absorption chillers in both units now convert waste heat into cold air, which will then be used to cool network nodes. Additionally, environmentally friendly dry coolers have also been installed in order to further reduce water consumption during the cooling process. The consequence is that the use of water and chemicals needed for the operation of the CHPs can be reduced considerably in the future.

ROUGHLY 9,000 METRIC TONS OF CO_2 COMPENSATED

Preventing greenhouse gas emissions is one of our top priorities. Investing in certified climate protection projects is one way to compensate for some of the CO_2 emissions that we are unable to avoid generating or reduce, our increased commitment to purchasing renewable energy is another.

Telekom Deutschland compensated for further 8,971 metric tons of CO_2 in the 2017 reporting year. These included emissions associated with our events (participant travel to and from the event, room usage, etc.) and certain products and services (e.g., conference calls or web conferences). Our Event Policy specifies the ways in which we compensate for emissions generated by events.

OUR STRATEGY FOR CLIMATE-FRIENDLY MOBILITY

We pursue a three-pillar strategy to ensure a climate-friendly fleet management strategy:

- Rightsize: selecting appropriately sized, energy-efficient, low-emissions cars. By introducing our Green Car Policy we have also created incentives for drivers of company cars to select smaller, more efficient cars.
- Economize: encouraging a fuel-efficient, low-emissions driving style with driver training courses
- Substitute: piloting and testing alternative mobility concepts.

We plan to keep average CO_2 emissions levels of all of the new cars we purchase (company and service vehicles) below 95 g CO_2/km by the end of 2020 in Germany.

Alternative engines

We can further reduce our fleet's carbon footprint by purchasing vehicles with alternative engines and fuel systems. For a while now, we have been using a certain number of vehicles powered by natural gas and electricity. In the short and mid-term, we will considerably increase the share of alternative engines in our fleet. In the context of the regular renewal of the fleet, we will work together with the units and use gas or electricity driven cars where the use and circumstances allow it.

Extensive choice of mobility options

We also encourage our commuting employees to actively protect the climate by enabling them to buy discount season tickets for local and regional public transport. We also rely on other modern forms of mobility including our shuttle service, which we have been offering at a variety of locations for ten years, loaner bikes for getting around in the city and rental cars. Our employees benefit from the attractive option of buying bicycles and e-bikes through a salary sacrificing scheme.

ON THE GO AND GREEN: E-BIKES, SHUTTLES, RENTAL BIKES

Since 2015, we have offered our employees in Germany the chance to purchase a bicycle or e-bike as a green and healthy alternative, through deferred compensation schemes. With the support of Telekom MobilitySolutions, employees can lease a bicycle through their employer for three years. The monthly payments are subtracted from the employee's gross salary. The new offer has met with a tremendous response right from the off. By the end of 2017, roughly 3400 colleagues were already making use of this option - a considerable increase of 160 percent as opposed to the previous year.

We provide shuttle service between different locations, e.g., to the Cologne/Bonn airport or the Siegburg ICE train station to reduce the carbon footprint of business trips. Roughly 120,000 passengers used this service in 2017. Employees can use an app or visit the intranet to conveniently book a shuttle.

Our employees can also use bicycles available at more than 30 Deutsche Telekom locations in Germany to get to their business appointments within the city.

Get to your customer faster with e-bikes

In 2017, we have started a pilot for our field service. Instead of using a car, some of our service technicians have been on the road with delivery e-bikes as a test. We have the hope to get to the customer faster in large cities and to improve our 'on-time' promise. Currently, six delivery e-bikes are in use in Hannover, Düsseldorf and Duisburg. We have also started a similar project in Stuttgart, where we are testing the use of scooters for field service staff.

ELECTRIC CARS IN US

There are still several hurdles to overcome before electric cars can be widely employed. Limited range, insufficient charging infrastructure and high procurement costs make the cars unattractive in many usage scenarios. It is particularly difficult to find suitable service vehicle models. There is a bright side, however. Thanks to the government environmental bonus, we were able to somewhat reduce the costs for electric vehicles in our fleet. Nevertheless, our electric car projects have only been possible because project partners have supported the set-up of charging stations at our locations. We participate in selected electric mobility pilot projects in order to take advantage of the medium-term potential of electric mobility.

- At our Bonn offices, for example, we offer four next-generation electric rental cars. Employees can use these cars for business trips free of charge.
- Deutsche Telekom Technischer Service is currently using three electric service vehicles. Further electric service cars are used in Stuttgart and Munich.
- We have two electric chauffeured cars in our management fleet for trips in the Greater Cologne/Bonn area and in Berlin. Charging stations for the car were set up on-site.
- Since the summer of 2014, we have been gradually offering selected hybrid vehicles and, in certain regions, electric vehicles as company cars.

MAGYAR TELEKOM STAYS CARBON NEUTRAL

The Magyar Telekom Group stayed completely carbon neutral in 2017and repeated its success from the previous 2 years. This achievement has put the company ahead of the largest telecommunication companies around the world. Our success is based on the purchase of 100 % renewable energy, enhancing energy efficiency, implementing carbon offset, and saving energy. The Group has defined an average emission value for our company cars and we reward compliance with the emission value. Users of cars with emissions above the reference values attracted penalty payments that were used for carbon offset. In 2017, we purchased CO_2 certificates that offset 25,000 mt of CO_2.

FOSTERING THE USE OF ELECTRIC CARS IN THE NETHERLANDS

In May 2014, T-Systems Netherlands introduced electric cars for lease drivers in order to help reduce the CO_2 emissions discharged from the company's cars. Charging stations have now been installed in parking areas to facilitate charging during office hours.

All-electric and hybrid cars help to reduce CO_2 emissions as shown in the table below. The reduction in CO_2 emissions is good for the environment and the lower tax rates provide a further major big advantage for drivers. These two benefits promote the popularity of these types of car in the Netherlands. This appeal is illustrated by the 24.5 % share of cars designed to reduce CO_2 in the company's fleet at the end of 2017.

Car type	CO_2 emissions	%
CNG (natural gas)	88 g CO_2	3.4
Hybrid	36-88 g CO_2	19.8
Pure electric	0 g CO_2	1.3
Total		**24.5**

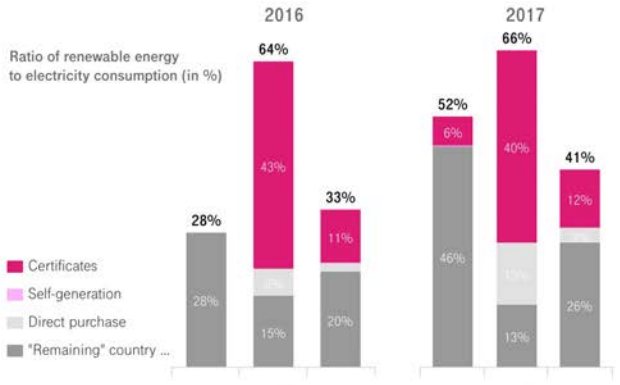
RENEWABLE ENERGY

Renewable energy is an important component in preventing the emission of greenhouse gases. We are therefore not only improving our carbon footprint by reducing our use of electrical power through energy efficiency measures, but are also optimizing the energy mix. The issue of renewable energies is one of the pillars in our four-pillar strategy for climate protection. Our national companies in Greece (OTE), Hungary, Albania, Austria and in the Netherlands are already pioneers in this field. 100 percent of their electricity came from renewable sources in 2017.

OUR APPROACH FOR MORE RENEWABLE ENERGY

In order to specify our integrated climate strategy, we are currently working on suitable goals and strategies in the field of renewable energy. One thing is clear - we want to increase the share of renewable energy across the Group and thus reduce our carbon emissions. For this, we want to procure more power from renewable sources, but also buy corresponding power certificates. Where it is possible and sensible, we are already investing in our own power generating systems, such as the construction of cogeneration plants or the installation of solar systems.

Since 2016, we have been capturing the ESG Renewable Energy KPI. The KPI is calculated based on the share of renewable energy in total electricity consumption. This is how it makes our progress in the area transparent. In 2017, the figure was at 41 percent across the Group (33 percent in 2016).



	D	EU [b]	Konzern	D	EU [b]	Konzern
Electricity from renewable energy (in GWh)	803	1 103	2 333	1 497	1 154	3 110
Total electricity consumption (in GWh)	2 840	1 720	7 107	2 879	1 738	7 546
Renewable Energy (ESG KPI)	28%	64%	33%	52% ✓	66%	41% ✓
Ren. energy mix [c]	28%	26%	23%	49%	25%	30%
Certificates	0%	43%	11%	6%	40%	12%
Self-generation	0.10%	0.03%	0.05%	0.12%	0.02%	0.05%
Direct purchase	0.0%	5.5%	1.7%	0.0%	12.9%	3.5%
"Remaining" country mix [a]	28%	15%	20%	46%	13%	26%

[a] The "remaining" country mix represents the remaining share of renewable energies from the national energy mix, after subtracting direct purchases, certificates, and self-generation.

[b] EU = National companies in Europe without Germany and T-Systems.

[c] The country mix is used as the basis when calculating the share of renewable energy in total electricity consumption, as no data is available regarding the share of renewable energy in the residual mix.. The country mix was calculated based on publicly available sources (European Commission, US Energy Information Administration). The share of renewable energy in the residual mix is typically lower than the country mix. For Germany, the EEG surcharge paid is taken into account when calculating the share of renewable energy.

✓ Data assured by PwC. In 2017 wurde erstmalig der Strommix des Versorgers zu Grund gelegt, welcher in Deutschland auch erneuerbare Energien aus der EEG-Umlage berücksichtigt. ´The 2017 calculation was based on the utility's electricity mix. If this is was not possible, the residual mix or country mix was used. Values cannot be directly compared to the previous year. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".

In addition, we have also introduced parametersthroughout the Group that can be used to assess electricity procurement at our national companies in terms of sustainability. These parameters help us make our current energy mix transparent and increase the future share of energy obtained from renewable sources.

CLEAN ENERGY GENERATION: NEW SOLAR POWER SYSTEMS INSTALLED

At our technology sites in Germany, we are increasingly relying on solar energy. By the end of the year 2017, we were already operating a total of over 300 of our own solar photovoltaic plants. Two new plants were added in the reporting year. In total, the plants have a capacity of 4,000kWp (kilowatt peak). In this way, we are reducing our ecological footprint by more than 1,700 metric tons of CO_2.In 2017, only two additionalsolar plants (with a total of 16 kW) were installed.

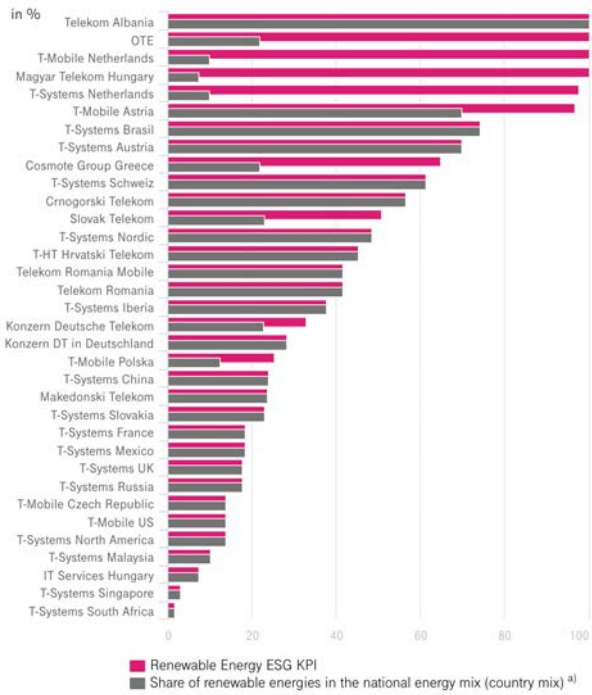
With the additional expansion, we are approaching our goal to equip a total of 600 sites with solar photovoltaic systems in the coming years. In 2017, we drew up a concept specifying how we can render more roof space usable for photovoltaic systems. Our internal energy service provider, Power & Air Solutions, is responsible for installing the systems.

MORE GREEN ENERGY AT EUROPEAN NATIONAL COMPANIES

In our European national companies, we want to increase the share of renewable energy in overall energy consumption to a level of at least 10percent above that of the respective national energy mix on an annual basis. In the reporting period, we were able to further increase the share of renewable energy in the European national companies. On average, the share of renewable energy was registered at almost XX percentage points above the respective country mix*. To this end the national companies can also purchase renewable energy certificates (proof of origin) if needed.

Our national companies in Greece (OTE), Hungary, Albania, Austria and in the Netherlands are already pioneers in this field and cover 100 percent of their electricity needs with renewable energies. T-Mobile US is planning on procuring its electricity entirely from renewables by 2021 - predominantly from wind power.

We are making the share of renewable energy transparent on a national company level:



a) The country mix is used as the basis when calculating the share of renewable energy in total electricity consumption, as no data is available regarding the share of renewable energy in the residual mix. The country mix was calculated based on publicly available sources (European Commission, US Energy Information Administration). The share of renewable energy in the residual mix is typically lower than the country mix. For Germany, the EEG surcharge paid is taken into account when calculating the share of renewable energy.

* In the calculation of the share of renewable energy in electricity procurement, the provider mix, the residual mix or the country mix is used as available, according to the IEA factor (in this order). The share of renewable energy in the residual mix is typically lower than the share in the country mix. For Germany, the EEG surcharge paid is taken into account when calculating the share of renewable energy.

ENERGY EFFICIENCY

Our network infrastructure forms the basis of our products and services. At the same time, network operation requires the most energy and therefore results in the largest carbon emissions, which makes achieving greater energy efficiency in network operation a key component of our climate protection target. When it comes to our networks, we engage in activities such as replacing outdated technology with new technology, e.g., the migration of our fixed-line network to IP technology. In addition, we are currently consolidating data traffic into only a few, particularly efficient, data centers.

GOALS	MEASURES	MEASURING SUCCESS
› Reduce energy requirements › A PUE factor of 1.4 in the fixed network in Germany by 2020	› Migration to IP › Decommissioning legacy technology › Consolidating data centers › Efficient technology for cooling, for energy supply within the network and for data centers	› Energy Intensity ESG KPI › Carbon Intensity ESG KPI › PUE value › Energy consumption

OPERATING ENERGY-EFFICIENT NETWORKS

We operate our own fixed-line and mobile networks in Europe and the U.S. Much of our energy requirements come from operating this network infrastructure. In the interest of our customers, we continue to increase the capacity and performance of our networks so that we can handle growing amounts of data and improve the speed and quality of data transmission. However, this also means higher energy requirements. We pursue three different approaches to reduce our energy needs.

- We update our network infrastructure, e.g., by migrating to IP technology, and systematically removing equipment we no longer need.
- We optimize energy generation and supply with the help of technical innovation.
- We use more energy-efficient technology for lighting, monitoring and above all cooling our facilities.

Our internal energy service provider, Power & Air Solutions, which buys energy and then makes it available for use by our Group companies in Germany, plays a key role in these activities. Power & Air Solutions' energy management practices have been ISO50001 certified since 2013.

Measuring and controlling energy consumption

In order to measure our progress across the Group, we introduced two key performance indicators (KPIs). They show our energy consumption (Energy Intensity ESG KPI) and our carbon footprint (Carbon Intensity ESG KPI) in proportion to the transmitted data volume. Using data volume as a reference parameter makes it possible to create a direct link to the performance and use of our networks. In the next few years, we are expecting a positive trend in both KPIs.

The PUE (Power Usage Effectiveness) factor is measured annually and is another important performance indicator for managing our climate protection measures. Our state-of-the-art data centers, e.g. in Munich or Biere, are set up for a PUE value of 1.3 and are therefore much more efficient than the average of German data centers, which lie at about 1.8. We are planning to reduce the PUE factor of our fixed-line network in Germany to 1.4 by the year 2020. For this value, we also forecast an additional reduction in the coming years. This will allow us in part to compensate for increasing energy requirements due to growing volumes of data and new features.

MORE CAPACITY FOR OUR ENERGY-EFFICIENT DATA CENTER

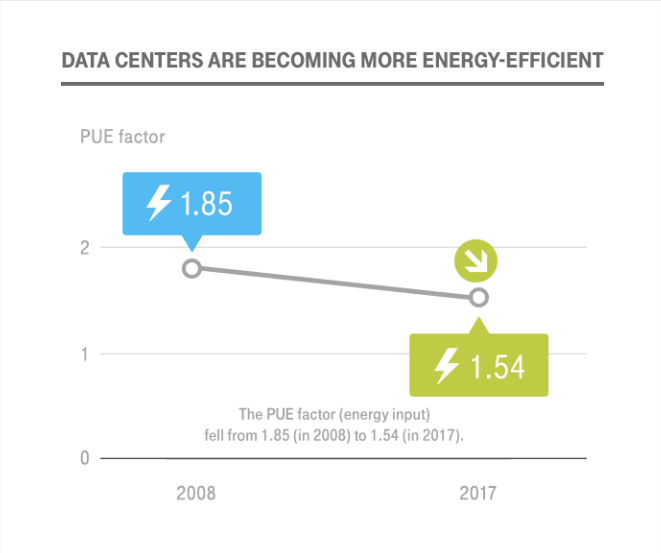
Our data center in Biere (near the city of Magdeburg) was put into operation in 2014 and is one of the world's most efficient data centers. And because demand for cloud services "made in Germany"is on the rise worldwide, we are currently expanding it to increase its server capacity by 150 percent. The foundation for the expansion of the data center has been laid:The new modules are scheduled to commence operation in the second quarter of 2018.

In 2017, a LEED (Leadership in Energy and Environmental Design) certification in Gold was requested for the expansion, just like it was requested for the first construction phase - an award that only very few data centers receive worldwide.

MEASURABLE SUCCESS: REDUCED CO_2 GENERATION AT DATA CENTERS

We also keep our goal of reducing our carbon footprint in mind when planning and operating our data centers. To achieve this goal, we take a two-step approach. It starts with optimizing energy consumption at each data center site and then continues with improving processes throughout the global data center landscape.

The key indicator for increased energy efficiency at our data centers is the PUE factor. We were able to reduce the average PUE factor at the T-Systems data centers in Germany from 1.85 to 1.54 between 2008 and 2017. In comparison with the previous year, the figure remained constant in 2017. The reason for this is the ongoing consolidation of the data centers, where applications from less energy-efficient sites are migrated to new, highly efficient data centers. This increases the PUE value of the decommissioned data centers in the short term. Overall, this process lead to a constant PUE value across all data centers in the reporting year.



The DC11@2018 program for improving processes throughout our global data center landscape has been up and running since 2013. The project combines physical data center consolidation (i.e., reducing data center space and sites) with logical consolidation (i.e., virtualizing data center infrastructure). The objective of the DC11@2018 program is to consolidate global data center capacity at FMO (future mode of operation) data centers using the latest IT technology. In 2017, we continued to remain on schedule with this program. Within the scope of the physical consolidation, we decommissioned three old data centers in Germany. At the same time, we further optimized air conditioning in the existing data centers in Biere and Munich.

The target average PUE factor at all FMO data centers in the Group will be 1.4 once the program has been completed in late 2018/early 2019. At the end of 2017, we were already at a PUE value of 1.51. This requires a homogeneous IT landscape combined with optimum capacity utilization of data center infrastructure, IT hardware and the software running on the systems. For the year 2020, the latest program plans indicate accumulated reductions in CO_2 by up to 51 percent compared to 2012.

Our target PUE factor for our highly efficient data center in Biere is 1.3. To achieve this target, it will be necessary to respect a given temperature level and to achieve a capacity utilization of at least 80 percent. We were not yet able to achieve the PUE target value in 2017.

ENERGY EFFICIENCY IN BUILDINGS

Our facility energy management activities focus on the two areas of heating energy and electricity consumption. We have defined sub-targets for each of these areas to help us attain our climate target in Germany. Twice a year, we measure our progress.

Two approaches help us achieve our sub-targets. We are reducing our office space as part of HR downsizing measures and are optimizing space usage by introducing new office concepts. We also identify needs for reduction in energy consumption by using specific indicators such as "kilowatt hours per square meter," "energy consumption at midnight" or "peak loads" to compare similar facilities. The energy management system of Power & Air Solutions, the provider purchasing energy for the German Group companies, is certified according to the international ISO standard50001.

Heat and hot water

In 2017, we used approximately 379 GWh of heating energy throughout Germany each year, primarily by using gas and heating oil as well as district heating. The need has decreased continuously in the past years. We regularly assess the need for repairs at our properties and conduct profitability analyses to further reduce consumption. Keeping the available budget in mind, we focus on the most necessary and particularly cost-efficient measures, including:

- Optimizing heating systems
- Updating the heating system in line with the German Energy Saving Ordinance
- Using condensing boiler technology to replace old heating systems and pumps
- Recovery of waste heat produced by data centers
- Using CHP plants

In order to reduce the use of heating energy in our exchanges, we have reduced the starting temperature of the heating system to 12 degrees.

Electricity

Our employee workstations, lighting, and building technology, including pumps, ventilation, cooling and elevators, are responsible for the largest part of electricity consumption in our buildings. We focus our energy conservation measures on the following areas:

- Using LED lighting and motion sensors
- Using state-of-the-art pumps and fans
- Switching off building technology outside working hours

ENERGY AND CLIMATE CHANGE PROJECTS IN GREECE

Energy Management System according to ISO 50001

The OTE Group has prioritized improvement in all the functions of energy performance and major company installations (office facilities, call centers, data centers and telecommunication networks). This is a response to global efforts directed toward mitigating climate change.

In 2016, OTE and COSMOTE achieved certification of two important buildings in their portfolio and five base stations in the mobile network in conformity with the ISO 50001 standard. The first year for implementation of the Energy Management System saw energy savings of some 3.5% in each building and an average of about 16 % in each base station. In 2017, the Energy Management System successfully expanded to seven important new facilities including technology andoffice buildings, call centers, data centers, and the head office of the OTE Group. The system has also been expanded to seven base stations in the mobile network.

The strategic aim of the OTE Group for 2018 is to further enrich its portfolio with a significant number of facilities certified according to ISO 50001.

“Green” building with LEED Gold Certification

The OTE Group respects the environment in practice and invests in the rational and sustainable use of energy throughout its operations. OTE Estate is a company of the OTE Group and it is responsible for the management and commercialization of the OTE Group’s real estate portfolio. The company organized and implemented renovation of a building (with total floor space of 10,850 m2) located in the historic center of Athens that houses part of the OTE Group’s Call Center services. The aim was to construct an environmentally sustainable building model capable of offering an ideal workplace for the Group’s employees.

The effectiveness of the building renovation was certified to gold level by the international LEED (Leadership in Energy and Environmental Design) certification scheme for environmental and sustainable buildings from the U.S. Green Building Council (USGBC). This is one of just few buildings in Greece with Gold level LEED certification and it is the second building in the portfolio of the OTE Estate to achieve this certification.

The building’s GOLD level LEED certification constitutes a significant distinction that was achieved after a very demanding process. The objective is to improve performance for a series of indicators such as energy consumption, water use, CO_2 emissions, the quality of the internal environment, and management of resources. Indicatively, the energy and environmental measures implemented in the building include the energy efficiency of the shell, installation of new electrical and mechanical equipment with optimum energy performance, an automation and control system for monitoring and optimizing the operation of electrical and mechanical building installations, and implementation of an extensive commissioning program during construction.

ENERGY STRATEGY AT T-MOBILE USA

The cross-functional energy team at T-Mobile USA representing retail, corporate real estate, critical facilities, network engineering, procurement and sustainability meets several times annually to raise the profile of energy efficiency across the business. T-Mobile submitted its second Carbon Disclosure report in 2017.

Our key energy metrics, energy and carbon intensity both saw strong improvements in 2017:

- Our energy intensity KPI decreasedfrom 549 to 430 kWh per terabyte.
- Our carbon intensity KPI decreasedfrom 260 to 192 kg CO_2 per terabyte.

Theseimprovements largely resultedfrom a 67% increase in data traffic while only experiencing a 17% increase in energy usage. Efficiencies in our equipment allowed for greater traffic loads without requiring an equal increase in energy consumption.

Our Renewable Energy Commitment:

In 2017, T-Mobile made a commitment to move toward 100% renewable energy usage by 2021. Early in the year, we made the largest windpower investment ever by a U.S. wireless company, buying up to 160 MW of renewable energy credits from the Red Dirt wind power project in Oklahoma. A second investment in the new Solomon Forks Wind Project in Kansas is underway.

The combined production of the Red Dirt Wind Power and the Solomon Forks Wind Project is a total contracted capacity of 320 MW, the largest amount held by any US wireless company and a landmark holding in the world of wind energy.

These 12 and 15-year clean energy contracts will reduce T-Mobile’s operating CO_2 emissions across our US retail stores, call centers, and network operations by 60 percent over the next two years.

ENVIRONMENTALLY FRIENDLY DATA CENTERS IN AUSTRIA

Operating data centers requires a great deal of energy and T-Systems Austria is dedicated to running its data centers in a maximally environmentally friendly approach. Mitigation makes our data centers in Gmünd, Linz and Vienna entirely carbon neutral. Mitigation means that resources are used to absorb the same amount of CO_2 asemitted by production of the energy necessary to run them.

We are also actively engaged in initiativesto reduce energy consumption. A “cold/heat technique” is used in server cabinets to regulate the temperature as efficiently as possible with resultant savings in energy. In 2017, we expect to achieve atotal energy reduction of 389,522 kWh. This yields a year-on-year reduction of 63 percent.

Our fire-extinguishing system has also been designed on environmental principles. Our data center at theT-Centerin Vienna has168fire extinguishersfilled with a mixture of nitrogen, argon and carbon dioxide for emergencies. The extinguishing agent is harmless to humans, leaves no residue, and is 100 percentenvironmentally neutral.

ENERGY SAVINGS AT T-SYSTEMS MEXICO

Several measures are being implemented to help save energy in our offices. These include replacement of fluorescent lamps with LED lamps, installation of motion sensors, and monitoring of the air conditioning system in all offices. As a result, a 9.5% saving in watts was achieved in 2017 compared with 2016. Moreover, we were able to implement efficient measures in energy consumption, such as photovoltaic cells. This allowed for a saving of 15% of the entire consumption of the facilities.

PROGRESS AT OFFICE BUILDINGS AND DATA CENTERS AT T-SYSTEMS NETHERLANDS

Since 2016, our office building in Vianen has been supplied entirely with green energy (100 %). Our offices in Heerlen and The Hague cannot be supplied with green energy due to the fact that there are other tenants in the building and to the strategy of the owner of the building.

In 2017, we focused on improved efficiency for the floor space of our office buildings. A significant decrease in floor space will be achieved as a result:

- at the end of 2018, a decrease of 50 % in The Hague and
- at the end of 2019 a decrease of 40 % in Vianen.

The main focus for our data centers in 2017 was the significant decrease of floor space and energy consumption (28 % less energy consumed by comparison with 2016, 13 % less energy consumed by comparison with 2015). This was achieved through asset refresh (life-cycle management), decommissioning, and data-center consolidation.

SUSTAINABLE PRODUCTS

Our products and services contribute to more sustainability. With solutions such as Magenta SmartHome, consumers can control their heating, lighting and electrical devices in a way that they only consume energy when the customer is at home. This lowers energy consumption and preserves resources. Our cloud solutions are another excellent example of how our products can help customers considerably reduce CO_2 emissions. Small and medium-sized enterprises (SMEs) that take advantage of cloud solutions can reduce CO_2 emissions by up to 21 metric tons each year on average. This is because, instead of being operated on the customer's premises, applications are shifted to efficient data centers, enabling customers to minimize their infrastructure.

That makes sustainable products such as the ones mentioned above are a key element in our integrated climate strategy. Our goal is to continue to systematically record and increase the CO_2 reduction potential offered by our products.

Learn more about our sustainable ICT solutions in the Customers and Products section.

CIRCULAR ECONOMY

There are a lot of areas where digitization can help conserve valuable resources and protect the environment. One example is dematerialization. Companies that store their data in the cloud no longer need a hard drive. Doing away with your hard drive conserves natural resources, reduces electricity consumption and generates less waste.

The "sharing instead of owning" approach also contributes significantly to resource conservation. Numerous sharing economy offers such as car-sharing become possible thanks to digitalization. We have set the goal for ourselves to support suitable concepts with our expertise and to advance them with respective offers.

Another solution approach is the responsible use of raw materials. It is our goal to reintroduce raw materials obtained from outdated products to the production process, which is why customers can return their outdated devices to us for proper recycling.

GOALS	MEASURES	MEASURING SUCCESS
› Improve resource efficiency	› Health, safety and environmental management system › International waste management framework	› Waste volumes › Used Cell-Phone Collection ESG KPI › Use of space

SAVING RESOURCES AND PROTECTING THE ENVIRONMENT

With our health, safety and environmental management system (HSE) we have made a commitment to continually improving our performance in these areas. The system is based on international standards OHSAS 18001 on occupational health and safety and ISO 14001 on environmental management.

As a service provider, we use considerably less resources than manufacturing companies. The resource utilization for the manufacturing and use of our products occurs in up- and downstream stages of the value chain - at our suppliers and customers. Within our value chain, we are committed to the responsible handling of resources. This means that we support the responsible use of raw materials by our suppliers and the re-utilization of materials by our customers. For example, we support cell-phone collection initiatives in various countries to facilitate the recovery of valuable resources. For this purpose, we have introduced the Used Cell-Phone Collection ESG KPI, which compares the number of cell phones in circulation (excluding TMUS) to the number of collected devices. We support cell-phone collection initiatives in different countries to facilitate the recovery of valuable resources. For this purpose, we have introduced the Used Cell-Phone Collection ESG KPI, which compares the number of cell phones (excluding TMUS) in circulation to the number of collected devices.

We regularly collect Group-wide data on the amount of waste we produce. Our International Waste Management Framework guarantees standardized guidelines for all of our national companies. They are required to use this framework as a basis for identifying their own measurable targets and then monitor target achievement. This approach makes it possible to flexibly address the specific requirements of each country and company without working with quantitative objectives.

Resource efficiency is also a priority at the workplace. We use recycled paper and energy-efficient multifunctional printers and encourage procurement of green office materials. In order to reduce the amount of paper used throughout the Group, we ask our employees to have their salary statements sent to their "De-Mail" account instead of having a printout sent by post. Around 20 percent of employees have already canceled delivery by post.

WASTE REDUCTION AND RECYCLING

Our waste management is organized according to uniform principles across the Group. The implementation lies in the responsibility of the national companies. On a Group level, we have not set a goal for the reduction of hazardous and non-hazardous waste. Instead, our national companies are developing their own waste strategies or updating their current strategies on the basis of our International Waste Management Framework, which we adopted in 2013. They are also setting their own targets, with the reduction of hazardous waste such as lead batteries having top priority.

Requirements for Group-wide copper cable recycling

Copper cables were a main component of telephone lines for decades. These are being replaced over the course of our fiber-optic roll-out. In January 2016, we therefore introduced a Group-wide, mandatory policy requiring copper cable recycling. This policy provides a guideline to our national companies when it comes to recycling and disposal of used cables.

TESTING ON RECOVERY OF TANTALUM FROM ELECTRONIC SCRAP

With our switch-over to IP technology and dismantling of analog infrastructure, we will be removing tons of old electronics over the next few years. We intend to recover precious metals such as gold and tantalum from the scrap. However, there are not yet suitable recycling methods for all metals. The tantalum used to manufacture condensers is extracted from coltan, which is considered a conflict resource. For this reason we have been conducting a project together with the bifaUmweltinstitut environment institute since 2013. The goal is to develop the perfect method for disassembling and recycling tantalum condensers. Different manual and automated methods for disassembling tantalum condensers were tested. Based on the results, we opted for an auto-

mated method in 2016. The circuit boards will be disassembled using thermal treatment. In order to implement the method in regular operations, a sufficiently high amount of electrical waste would be required. In 2017, we have not yet been able to provide this. We are planning to implement this method starting in 2018.

SALE AND REUSE OF ELECTRICAL AND ELECTRONIC EQUIPMENT IN SPAIN

Since 2012, T-Systems Iberia has been handing over redundant electrical and electronic equipment to Kapema, a company committed to refurbishing and reselling this type of equipment. Employees at T-Systems are given top priority for the resale of any equipment. This scheme has greatly reduced the amount of electrical and electronic waste generated. During 2017, 543 laptops and 96 desktops were sold. This has exerted a significant impact as a result of reducing emissions from devices by 2,844 kg.

COSMOTE PROVIDES REFURBISHED EQUIPMENT

The OTE Group integrates the principles of the circular economy in its operations across its value chain.

Since September of 2013, contracts for fixed telephony, internet and TV have included lease provisions for the equipment provided (provided that the customer chooses to obtain the necessary equipment from COSMOTE) at no cost. This is intended to expand the lifetime and overall utilization of the equipment provided to customers of COSMOTE and the GERMANOS retail network, and ensure proper end-of-life management for end-devices. According to these conditions, operation of the equipment is covered by a guarantee while the client is under contract. The client is obliged to return the equipment after the contract comes to an end. Returned equipment undergoes detailed control checks and is repaired as necessary. It is then returned to the market in fully operational condition. COSMOTE cooperates with licensed disposal companies, and discarded equipment is forwarded to them for recycling.

As a result, consumption of resources and waste generation rates are reduced and the value of the embedded resources is maintained in the economy for as long as possible, while customers benefit from lower costs for high quality services.

Highlight figures for 2017:

- All new contracts (residential and business customers) included lease options at no cost for terminal equipment
- 147,897 items of equipment were checked and 115,239 items were refurbished and returned to the market.
- During the period from 2013 to 2017, around 259,092 items were recycled.

OTHER ENVIRONMENTAL TOPICS

We assume responsibility for creating a climate-friendly society – at our company, among our customers and suppliers and through our social commitment. We focus on those areas where we can make the most impact.

Other environmental topics are addressed as well, such as protecting biodiversity and responsible water consumption. Our infrastructure can also be a part of our solution – for example, with the "Bee and Me" project, which helps beekeepers protect their bees.

PROTECTING BIODIVERSITY

Species extinction is occurring at an alarming rate worldwide, and the consequences are difficult to predict. One major cause of extinction is the fact that more and more space is being taken up by industry, agriculture and transportation. When it comes to our environmental impact, the topic of land usage plays a subordinate role for us. Deutsche Telekom's business operations primarily impact biodiversity at the beginning of the value-added chain. This impact is clearly diminished at later stages.

Nevertheless, we are concerned about protecting biodiversity. To this end, we develop and support ICT solutions that can help maintain biodiversity. Furthermore, we influence the maintenance and enhancement of biodiverse habitats in the direct surroundings of our various locations. That is why we collaborate with competent partners on nature conservation efforts near us.

Fighting bee mortality with narrowband technology

Deutsche Telekom supports solutions that help maintain biodiversity. One example of this is a solution by start-up company "Bee and Me" from Montenegro. This young company uses narrowband technology NB-IoT (Narrowband Internet of Things) for optimizing apiculture. With this technology, data relevant to the beehive, such as temperature, relative humidity, air pressure, weight and bee activity, can be recorded and sent to the beekeeper using an app. This allows the beekeeper to take immediate action if the beehive is in danger.

Renaturation of biodiverse habitats

Since 2003 we have been carrying out comprehensive collection campaigns for used cell phones. The cell phones are then reused or, if they are no longer functional, properly recycled in an environmentally responsible manner. We use the profits from these collection campaigns to support charitable organizations, especially in the fields of resource protection, environmental protection, nature conservation and education. In 2017, we supported two biodiversity protection projects – a gorilla protection project sponsored by the Frankfurt Zoological Society as well as the monkey orphanage J.A.C.K. sponsored by Pro Wildlife e.V. Both organizations have been partners in the cell phone collection center since 2017. You can find more information at www.handysammelcenter.de.

Cooperation with Environmental ActionGermany ended

We supported the nature conservation projects of Environmental Action Germany from 2003. This cooperative venture was terminated at the end of 2017.

INITIATIVES FOR RESOURCE EFFICIENCY AT THE WORKPLACE

We try to use as many green office supplies as possible in order to improve resource efficiency at the workplace. A total of 16% of products are classified as sustainable in our office products catalog in Germany. This includes paper that has been distinguished with the "Blue Angel" eco-label or the "Nordic Swan" certificate. Some of our office products have also been honored with the EU Flower eco-label, the Fairtrade seal, and the FSC (Forest Stewardship Council) and the PEFC (Program for the Endorsement of Forest Certification Schemes) eco-labels. In 2017, the percentage of sustainable products ordered was 96%.

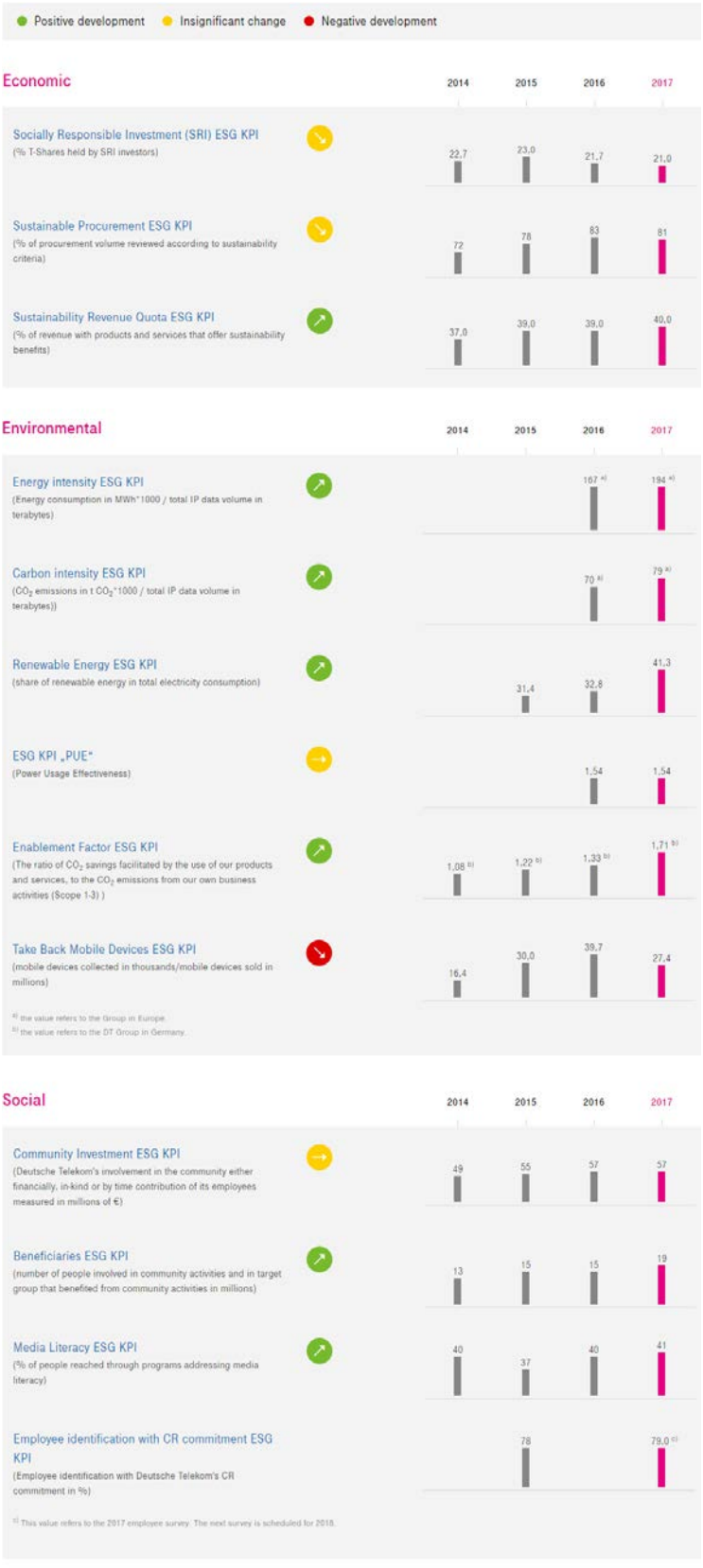
During this year, we repeatedly sold remaining stock, giveaways and corporate clothing to our employees at our Bonn location as well as in the online shop. These activities were very well-received this year as well. The office supplies swap meet has become a fixture in Bonn, an event during which colleagues can pick up discarded office supplies from other departments instead of ordering new products.

We also entered into a cooperative venture with the non-profit organization "Afb social & green IT" in 2017. Within the scope of this venture, we will give some of our used IT hardware (e.g. laptops) to the organization so that it can recondition and resell this. This will not only help us save resources but also create jobs for people with disabilities as well as extend the life cycle of our used hardware. We held a very successful on-site sales promotion at our Bonn location at the end of November 2017 within the framework of this cooperation.

WATER CONSUMPTION

We need water to live and it continues to grow scarcer. The World Health Organization estimated that more than one billion people worldwide do not have access to clean water. As a service provider, our water consumption is comparatively small compared to the agricultural and manufacturing industries. We almost exclusively use water within the scope of our office activities. Water consumption also plays but a minor role along our supply chain. For that reason, water is not a main focal area in our CR management activities. Nevertheless, we use our Water Consumption KPI to record our annual water consumption, which we have been able to consistently reduce since 2012.

FACTS & FIGURES



SOCIALLY RESPONSIBLE INVESTMENT

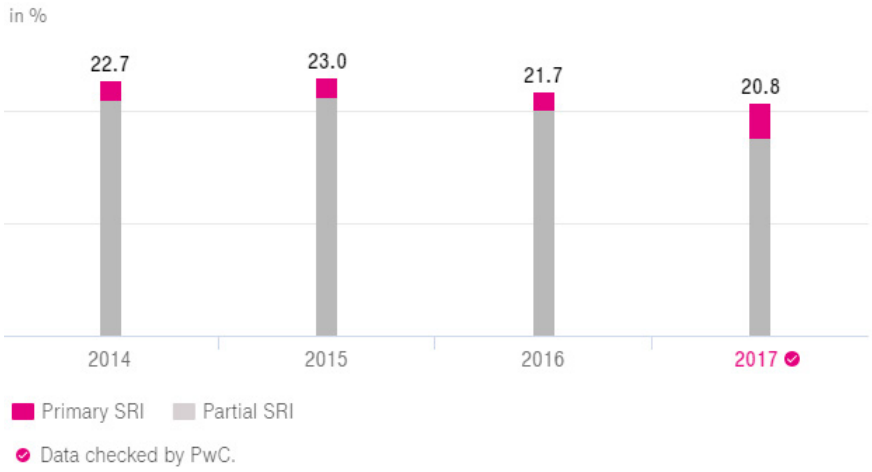
SOCIALLY RESPONSIBLE INVESTMENT (SRI) ESG KPI

The Socially Responsible Investment (SRI) ESG KPI indicates the proportion of shares in Deutsche Telekom AG held by investors who take, among other criteria, environmental, social, and governance criteria into account for their investment strategy. As the basis of calculation is updated annually, year-on-year comparisons may be of limited value. (Source: Ipreo, based on Deutsche Telekom's shareholder structure as of Sept. 30, 2017)

Our commitment for more sustainability pays off for investors as well: As of September 30, 2017, roughly 18 percent of all T-Shares were held by SRI (socially responsible investment) investors, and around 3 percent were held by investors who manage their funds primarily in accordance with SRI aspects.

Reporting against standards

The KPI is relevant for criteria 1 (Strategic Analysis, Strategy and Goals) and 7 (Rules and Processes) of the German Sustainability Code.



LISTING OF THE T-SHARE

Sustainability ratings play a key role in SRI investment decisions. In line with our corporate responsibility strategy, we concentrate on specific rating agencies that we select on the basis of reputation, relevance and independence.

In 2017, the T-Share was again listed on leading sustainability indexes, including RobecoSAM's prominent DJSI World and DJSI Europe. Once more, our share was listed on the FTSE4Good and UN Global Compact 100 indexes. Rating agency "oekom" singled us out as the world's best telecommunications company in terms of ecological and social performance in 2016.

Reporting against standards

The KPI is relevant for criterion 1 (Strategic Analysis, Strategy and Goals) of the German Sustainability Code.

Rating agency	Indexes/ratings/ ranking	Successfully listed in index					
		2017 ●	2016	2015	2014	2013	2012
RobecoSAM	DJSI World	✓	✓	✓	✗	✗	✓
	DJSI Europe	✓	✓	✓	✗	✗	✓
CDP	STOXX Global Climate Change Leaders	✓	✓	✓	✓	✓	✗
oekom research AG	„Prime" (Sector Leader)	✓	✓	✓	✓	✓	✓
Sustainalytics	STOXX Global ESG Leaders	✓	✓	✓	✓	✓	✓
	iSTOXX 50 SD KPI	✓	✓	✓	✓	✓	n.a.
	UN Global Compact	✓	✓	✓	✓	✓	n.a.
FTSE Financial Times Stock Exchange	FTSE4Good	✓	✓	✓	✓	✓	✓

✓ Successfully listed ✗ Not listed

● Data checked by PwC.

SUPPLIERS

SUSTAINABLE PROCUREMENT ESG KPI

The Sustainable Procurement ESG KPI remained on a stable level against the prior-year figure. The share of the procurement volume that has been risk-assessed momentarily amounts to 81 percent. Over the next two years, we expect our Sustainable Procurement ESG KPI to remain stable at a high level. Our aim is to keep a coverage of at least 80 % until 2020.

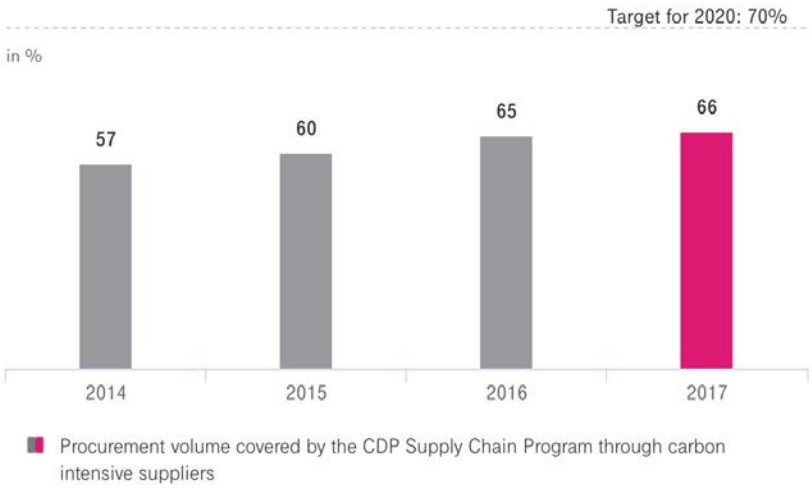
We measure the degree to which our procurement volume is covered by sustainable activities with the Sustainable Procurement ESG KPI. It measures the share of procurement volume we obtain from suppliers where one or several Group companies of the corporate group have been assessed for compliance with our social and environmental standards by way of self-assessments and/or audits. This also applies for audits carried out on subcontractors. In the coming years we expect our Sustainable Procurement ESG KPI to stay at a constant level.

Reporting against standards

The Sustainable Procurement ESG KPI together with information about our strategic approach fully covers the GRI 412-1 (Human Rights Assessment) and GRI 414-1 (Supplier Social Assessment) GRI indicators. By providing this information, we cover the V28-04 EFFAS indicators (Supply Chain). It is also relevant for criteria 1 (Opportunities and Risks), 3 (Sustainability Goals), 4 (Value Added Chain), 6 (Rules and Processes), 7 (Performance Indicators) and 17 (Human Rights) of the German Sustainability Code. It is also used for reporting in accordance with the Global Compact Principles 1 (Supporting and respecting human rights), 2 (No complicity in human rights abuses) and 5 (Effective Abolition of Child Labor).

CDP SUPPLY CHAIN COVERAGE ESG KPI

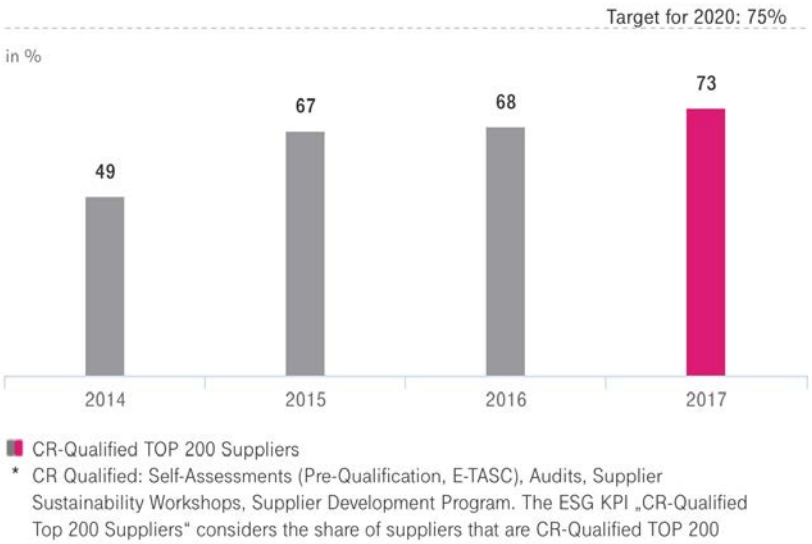
The ESG KPI „CDP Supply Chain Coverage“ is reported externally for the first time in 2017. It indicates the degree to which our procurement volume from carbon intensive suppliers is covered by the CDP Supply Chain Program. The share of the procurement volume that has been covered by the CDP Supply Chain Program in 2017 amounts to 66 percent. Our target is to cover 70 percent of our carbon intensive suppliers by 2020.



CR-QUALIFIED TOP 200 SUPPPLIERS ESG KPI

The ESG KPI „CR-Qualified Top 200 Suppliers“ * is an internal management indicator which complements the ESG KPI “Sustainable Procurement”. While the ESG KPI “Sustainable Procurement” measures the share of procurement volume reviewed according to sustainability criteria, the KPI “CR-Qualified Top 200 Suppliers” reflects the share of suppliers from the Top 200 Suppliers pool. These are reviewed based on sustainability criteria according to Self-Assessments, Audits, Supplier Sustainability Workshops and Supplier Development Programs. The share of suppliers taken from the Top 200 pool amounts to 72 percent in 2017. Our target is to reach 75 percent by 2020.

In the future, we will concentrate to monitor product groups/suppliers fraught with risks even more by using adequate regulation tools.

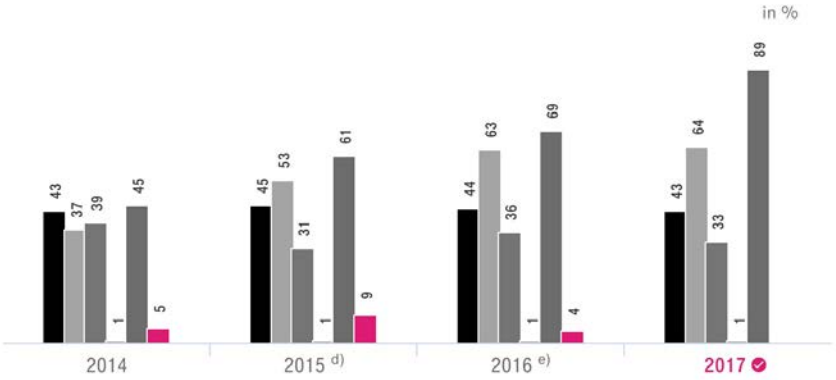


SUPPLIER RELATIONSHIPS

The percentage of audited procurement volume decreased slightly from 36% in the previous year to 33% in 2017. At the same time, the percentage of procurement volume covered by E-TASC stabilized at 43 percent. A supplier prequalification process via the Supplier Management Portal (SMP) took place for 64% of the procurement volume in 2017, compared with 63% in the previous year. Prequalification is mandatory for all suppliers for which we anticipate an order volume of more than 100,000 euros. In 2017, all suppliers whose qualifications had expired or were still pending or not yet completed were asked to complete the qualification once again. This allowed us to increase the number of qualified suppliers. The share of procurement volume obtained from developing and emerging markets remains steady at 1.0 %.

Reporting against standards

The Sustainable Procurement ESG KPI together with information about our strategic approach fully covers the GRI 414-1 (Supplier Social Assessment) GRI indicators. We also comply with criterion 17 (Human Rights) of the German Sustainability Code. The KPI is also relevant for the EFFAS indicator (V28-04) and for criteria 1 (Opportunities and Risks), 3 (Sustainability Goals), 4 (Value Added Chain) and 6 (Rules and Processes) of the German Sustainability Code. It is also used for reporting in accordance with the Global Compact Principles 1 (Supporting and respecting human rights), 2 (No complicity in human rights abuses) and 5 (Effective Abolition of Child Labor).



a) Procurement volume from Procurement's global database (GDB).
b) Data audited by PwC. Includes social audits carried out both internally and externally. Based on procurement volumes at Group Procurement
c) Data audited by PwC. Includes social audits carried out internally and externally. (both within Deutsche Telekom and via the Joint Audit Cooperation (JAC)). Audits also include follow-up audits.
d) Retroactive correction of the 2015 data in the year 2016
e) Basic data drawn from a projection of procurement volume as of Oct. 2016."

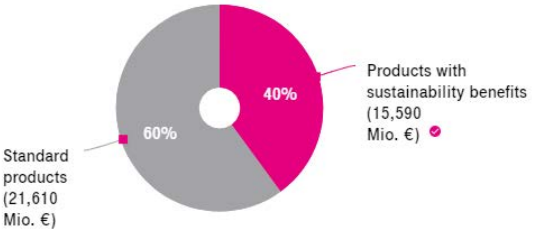
SUSTAINABLE PRODUCTS

SUSTAINABILITY REVENUE QUOTA ESG KPI

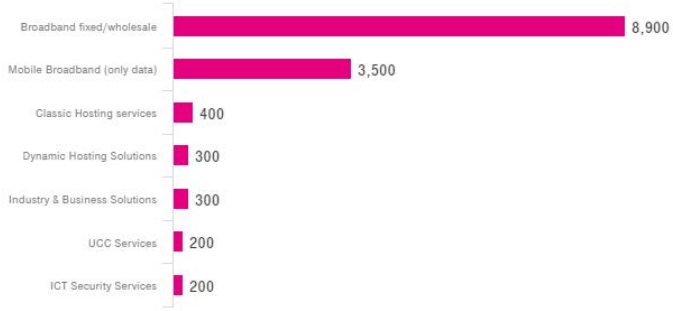
ICT technologies play a key role in sustainable development. Potential benefits include the ability to reduce greenhouse gas emissions, make sparing use of resources and improve healthcare coverage. We commenced the analysis of our portfolio on the basis of sustainability aspects in 2014.The result for 2017 showed that already 40 percent of our revenue was generated with products and services that offer sustainability benefits.

40% of revenue with products and services that offer sustainability benefits

Share of revenue with products and services that offer sustainability benefits DT
(DTAG excl. US, 2017)



Extract: Revenue with sustainability benefits per products *
(in mio. €)



* 22 products and solutions have been evaluated in total

Data checked by PwC.

Reporting against standards

Specifying the Sustainable Revenue Share ESG KPI is relevant for the EFFAS KPI V04-13 (Revenues from new products innovation). It is also relevant for criteria 3 (Objectives) and 10 (Innovation and Product Management) of the German Sustainability Code. It is also used for reporting on Global Compact Principle 9 (Encourage the development and diffusion of environmentally friendly technologies).

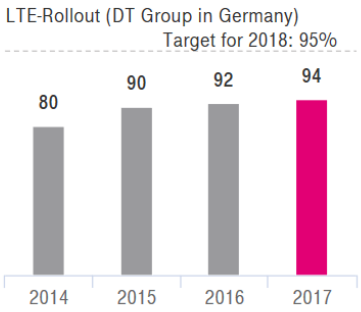
NETWORK DEVELOPMENT

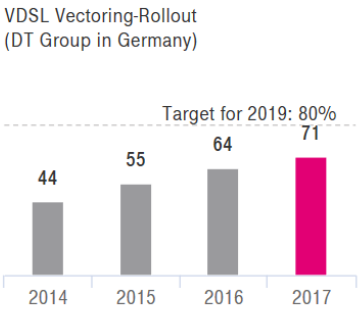
NETWORK BUILDOUT

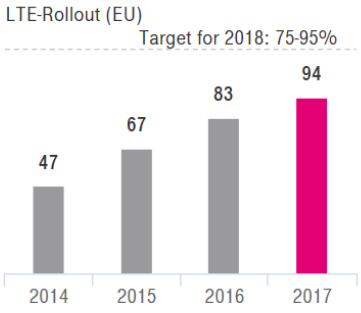
We again made significant investments in the broadband and fiber-optic buildout, our IP transformation, and our mobile infrastructure as part of our integrated network strategy.

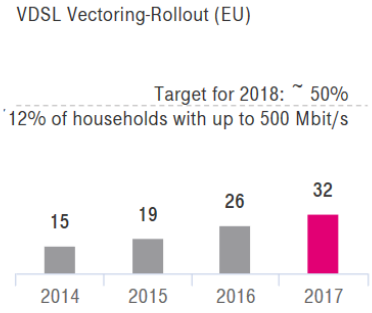
We are building an IP-based network with high transmission bandwidths so that, in the future, we can offer our customers competitive high-speed lines, e.g., by migrating our VDSL network to vectoring technology. In addition, we are investing heavily to offer greater coverage and even higher speeds in rural areas as well. We are also using innovative products for this purpose – like our hybrid router, which combines the transmission bandwidths of fixed-network and mobile communications, thus enabling much higher transmission speeds.

Part of our network strategy is to also systematically build out our mobile networks with 4G/LTE technology to increase transmission rates in all our national companies. Thanks to investments in our 4G/LTE network, our customers enjoy better network coverage with fast mobile broadband. In 2017, we already supplied 94% of the population of Germany with LTE (94 % in Europe). This puts us right on schedule to reach our goal of between 75 and 95 percent network coverage by 2018.









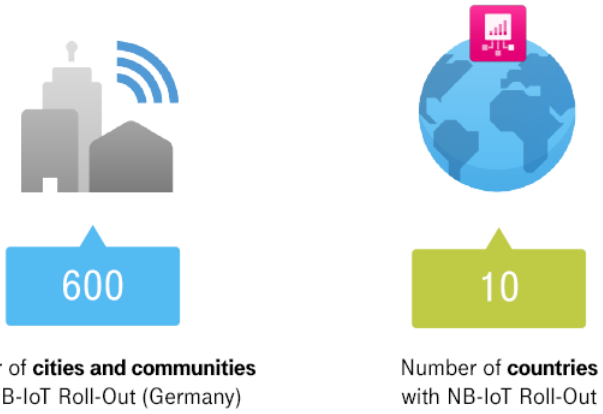
SMART INNOVATION

In this section, we will introduce some "Smart Innovation" solutions. The associated business models are based on the most advanced technology and provide an immediate value-add for our customers. At the same time, these solutions are also making an ecological and/or social contribution to society.

We are, for example, utilizing future-oriented and widely available technologies to make cities viable for the future and to develop solutions for social challenges. For this, we are relying on innovative NarrowBand IoT (NB-IoT) technology, with which we are paving the way for the Internet of Things. NB-IoT devices have a large operating range and long battery service lives. Consequently, this technology provides the basis for many innovative uses that are both cost- and energy efficient. Particularly useful areas of application for NB-IoT are, for instance, smart parking, smart cities, smart meters, as well as transport and logistics solutions.

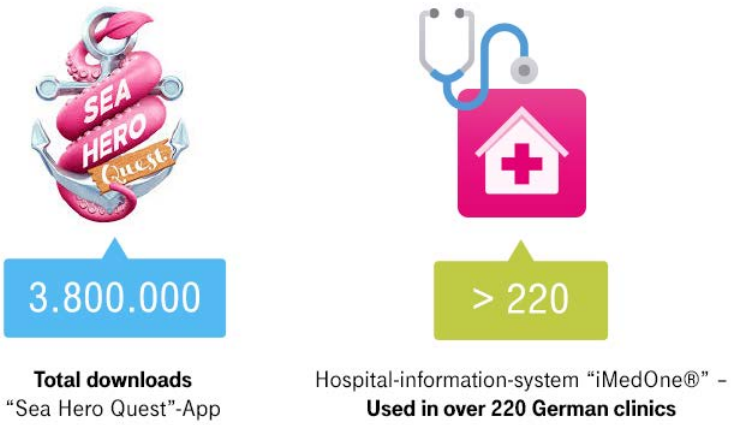
In early 2018, NB-IoT was already available in more than 600 cities and municipalities in Germany, for instance in the metropolitan areas of Berlin/Potsdam, Cologne/Bonn, the Ruhr district, Mannheim/Heidelberg, and Stuttgart. Progressive rollout in the coming months will see many more cities in ten additional countries being equipped with the new infrastructure. In addition to the USA and Germany, the Netherlands, Greece, Poland, Hungary, Austria, Slovakia, as well as the Czech Republic and Croatia will be included in this rollout.

SMART INNOVATIONS: NB-IOT

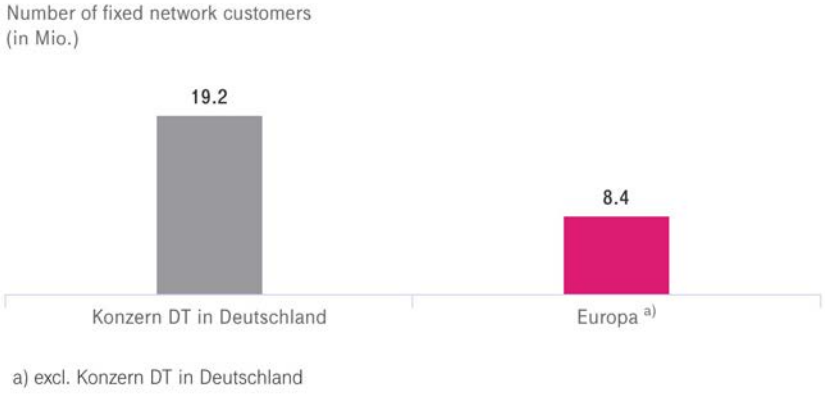


In the area of e-health, we are highlighting, for the reporting year, two innovative applications that provide added social value, in particular, for our customers and for society: the game Sea Hero Quest gives scientists important insights into the spatial navigation ability of individuals of all ages, within minutes – and thus 150 times faster than with conventional research methods. Gamers thus make a direct contribution to dementia research while having fun. The other e-health solution, iMedOne®, is a hospital information system. It creates optimal conditions for connected work and supports hospital processes in multiple ways. This means that physicians and nursing staff, for instance, are able to access required data and functions at all times and everywhere. This makes a significant contribution to cost-efficiency and quality improvement. An efficient and fully integrated hospital information system that can be used on mobile devices thus improves the quality of care.

SMART INNOVATIONS: USE CASES E-HEALTH



NUMBER OF FIXED NETWORK CUSTOMERS



a) excl. Konzern DT in Deutschland

DATA SECURITY AND PROTECTION

A random sample of 50,000 Telekom employees are surveyed on the topics of data protection and IT security each year. The findings of the survey are used, for example, to determine the Security Awareness Index (SAI) and the Data Protection Award indicator. The indicators help us to review the effectiveness of our measures in the areas of IT security and data protection.

The Data Protection Award indicator measures the level of data protection within the units. It is calculated based on what the employees said they thought, did and knew about data protection.

The Security Awareness Index measures our employees' perception of IT security at Deutsche Telekom. The assessment is based on Deutsche Telekom employee answers on management awareness of the topic, the security culture, the influence of security requirements on their own work, and their personal responsibility for and attitudes towards IT security. The index includes a scale from 0 to 100 – the higher the value, the higher IT security is rated at Deutsche Telekom.

Reporting against standards
The information on the indicator "IT Security & Data Protection" is relevant for GRI indicator GRI 418-1 (Substantiated complaints concerning breaches of customer privacy and losses of customer data). It is also used in our reporting on Global Compact Principle 1 (Protection of international human rights).

a) excl. T-Mobile US

Data verified by PwC.

FINANCIAL PERFORMANCE INDICATORS

NET VALUE ADDED

The net added value increased from 34.1 billion euros to 42.8 billion euros is primarily the result of increased payments for investments, in particular in the course of the spectrum auction of FCC licenses in the USA, which was finalized in April 2017, and of continuously high investments for the network expansion in the USA and the fiber-optic network expansion in Germany. The payments to investors also increased as a result of premature and scheduled repayment of bond liabilities for 2017 and the repayment of loans. The payments to employees slightly declined corresponding to the decreasing average headcount of the business year.

In contrast to the statement of income, the net value added only takes account of real payment flows. That means that deferred tax expenses and the accrual of provisions do not impact the net value added of the reporting period. Although these costs are deducted from net profit in the statement of income, they are not linked to any current payments to stakeholder groups, as is the case with net value added. Outpayments in this respect are scheduled for the future and will only be accounted for in net value added in future years.

Reporting against standards

With this KPI, we fully cover the GRI 201-1 (Direct economic value generated and distributed) GRI indicator.

NET REVENUE, EBITDA AND NET PROFIT

A detailed clarification of our financial KPIs is available atwww.telekom.com/investorrelations.

in bn. €		2014	2015	2016	2017
Net revenue		62.7	69.2	73.1	74.9
EBITDA (adjusted for special factors) [a, b]		17.6	19.9	21.4	22.2
EBITDA margin (adjusted for special factors) [c]		28.0	28.8	29.3	29.7
Net profit (loss)	in %	2.9	3.3	2.7	3.5

[a] Deutsche Telekom defines EBITDA as profit/loss from operations before depreciation, amortization and impairment losses.
[b] EBITDA, EBITDA adjusted for special factors, net debt, and free cash flow are non-GAAP figures not governed by the International Financial Reporting Standards (IFRS). These measures should be considered in addition to, but not as a substitute for, the information prepared in accordance with IFRS. Alternative performance measures are not subject to IFRS or any other generally accepted accounting principles. Other companies may define these terms in different ways. For further information relevant to alternative performance measures, please refer to the Annual Report section Management of the Group, page 31 et seq., or to Deutsche Telekom's Investor Relations website.
[c] Calculated on the basis of millions for the purpose of greater precision. Changes to percentages expressed as percentage points.

REVENUE DEVELOPMEN

In 2017 Deutsche Telekom generated Group revenue of 75 billion euros, reflecting growth of 2 billion euros, a significant increase year on year. The international share of Group revenue rose by 3.4 percentage points to 66.3 percent. Likewise, revenue per employee increased steadily in 2017 to 346,000 euros, translating into a growth rate of 4.5 percent.

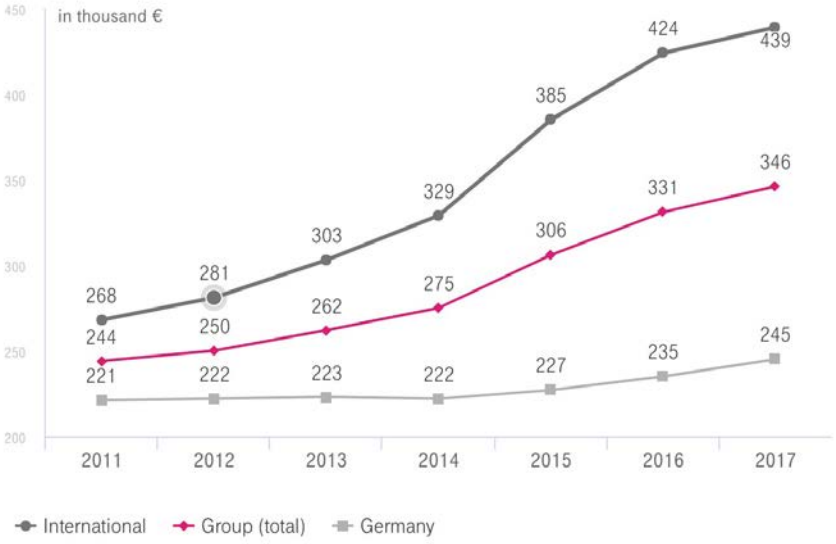
in bn. €	2014	2015	2016	2017	Change on 2016 (in bn/pp)
Net revenue Germany [a]	25.7	25.7	21.8	24.6	2.8
Net revenue international [a]	36.9	43.5	48.4	50.4	2.0
Net revenue Group (total)	62.7	69.2	73.1	75.0	1.9
International revenue as a percentage of Group revenue	58.9%	62.9%	66.3%	66.3%	0 pp

[a] Since revenue allocation to determine ratios is from an HR perspective, it reflects the location of employees (FTE); see annual report section "Workforce statistics"
In the annual report revenue is allocated to the country where it is generated.

FINANCIAL PERSONNEL INDICATORS

REVENUE PER EMPLOYEE

In the year 2017, revenues per employee increased to EUR 346,000 groupwide – this represents a gain of 4.5 percent. The majority of this increase in revenues per employee can be traced back to Germany (+ 4.7 percent). Outside Germany, revenues per employee increased from around EUR 424,000 to around EUR 439,000.



PERSONNEL COSTS AND PERSONNEL COST RATIO

By personnel costs we mean basic personnel costs (salaries) and incidental personnel expenses – where applicable including, or adjusted for, special factors in conjunction with personnel restructuring measures (individual downsizing instruments). The personnel cost ratio represents personnel costs as a proportion of revenue. The development of this rate serves as a benchmark for company business. This performance indicator has fallen continually Group-wide since 2012 from 23.2 to today's figure of 19.9 percent. The key driver of the Group's adjusted personnel cost ratio, which fell by 0.4 percentage points, is the significant rise in revenue. It more than compensated for the rise in personnel costs in the Group.

The disadvantage of the personnel cost ratio is that it ignores external personnel costs. Therefore the total workforce costs ratio is more meaningful for the management of personnel costs at Deutsche Telekom.

in bn. €	2011	2012	2013	2014	2015	2016	2017
Personnel costs in the Group	14.8	14.7	15.1	14.7	15.8	16.5	15.5
of which: Germany	9.2	9.2	9.4	9.1	9.4	9.8	8.5
Special factors	1.2	1.2	1.4	0.9	1.2	1.5	0.6
Personnel costs in the Group adjusted for special factors	13.6	13.5	13.7	13.8	14.6	14.8	14.9
Net revenue [a)]	58.7	58.2	60.1	62.7	69.2	73.1	74.9
of which: Germany	27.2	26.7	26.3	25.7	25.7	25.3	25.2
Adjusted personnel cost ratio Group (total. in %)	23.1	23.2	22.7	22.0	21.2	20.3	19.9
Adjusted personnel cost ratio Germany (in %)	30.6	31.1	32.3	32.9	33.0	32.9	32.1

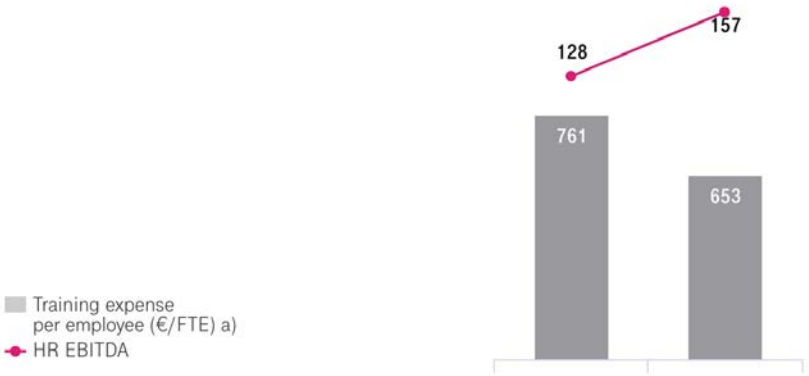
[a)] As revenue allocation is separated into Germany/international from an HR perspective, this reflects employee location, unlike the financial report, which allocates revenue to the country where it was generated.

HR EBITDA (RATIO)

The so-called „HR EBITDA“ puts into ratio the calculated earnings per employee with the investments in training per employee.

Reporting against standards

This data is relevant for the GRI 404-1 (Average hours of training per year per employee)and GRI 404-2 (Programs for upgrading employee skills and transition assistance programs) GRI indicators as well as the S02-02 (Training expenses per employee) EFFAS indicator. This data also covers criterion 16 (Steps taken to promote the general employability of all employees) of the German Sustainability Code.



	2016	2017
EBITDA (m€ adjusted)	8 800	8 500
EBITDA per employee (€/FTE)	97 105	102 700
Training budget (m€) [a]	132	112
Training expense per employee (€/FTE) [a]	761	653
HR EBITDA	128	157

HR EBITDA = EBITDA per employee (€/FTE) / Training expense per employee (€/FTE)

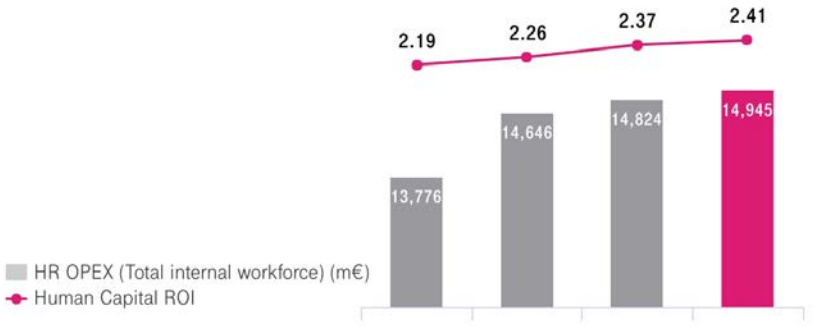
[a] DT Group without T-Mobile US

HR ROI

The so-called "Human Capital Return on Invest (ROI)" illustrates the company's return on investment in human capital by building a ratio between revenue, OPEX and the costs of our internal workforce (IWC).

Reporting against standards

This data is relevant for the GRI 404-1 (Average hours of training per year per employee) and GRI 404-2 (Programs for upgrading employee skills and transition assistance programs) GRI indicators as well as the S02-02 (Training expenses per employee) EFFAS indicator. This data also covers criterion 16 (Steps taken to promote the general employability of all employees) of the German Sustainability Code.



	2014	2015	2016	2017
Total Revenue (m€)	62 658	69 228	73 095	74 947
Total OPEX (m€ adjusted)	46 217	50 723	52 718	53 854
Internal Workforce Costs (IWC) (m€ adjusted)	13 776	14 646	14 824	14 945
Human Capital ROI	2.19	2.26	2.37	2.41

Human Capital ROI = (Total Revenue - Total OPEX) / HR OPEX (Total internal workforce)

TOTAL WORKFORCE COSTS

In bn. €	2012	2013	2014	2015	2016	2017
TWC [a]	**15.5**	**15.3**	**15.4**	**16.5**	16.8	**16.9**
of which: Germany	**9.4**	**9.3**	**9.2**	**9.2**	9.1	**8.9**
IWC [b] (PC [c] adjusted)	8.3	8.5	8.5	8.5	8.3	**8.1**
EWC [d] Leased and temporary workers	0.1	0.1	0.05	0.05	0.03	**0.04**
EWC [d] Freelancers and consultants	1	0.8	0.7	0.7	0.7	**0.8**
of which: international	**6**	**6**	**6.1**	**7.2**	7.8	**7.9**
IWC [b] (PC [c] adjusted)	5.2	5.2	5.3	6.1	6.5	**6.8**
EWC [d] Leased and temporary workers	0.3	0.2	0.3	0.4	0.5	**0.2**
EWC [d] Freelancers and consultants	0.6	0.6	0.6	0.7	0.8	**0.8**

[a] Total workforce cost: external workforce cost + personnel cost adjusted for special factors
[b] Internal workforce cost
[c] Personnel cost
[d] External workforce cost: cost of leased and temporary workers + cost of freelancers and consultants

TOTAL WORKFORCE QUOTA

Total workforce management allows HR to be managed in a holistic manner, enabling qualitative and quantitative personnel planning over the long term. The total workforce ratio describes the relationship between all personnel expenditure and revenue. This means: if the ratio has fallen in comparison with the previous year, either revenue has remained constant while total workforce costs have gone down, or revenue has increased with stable Total Workforce Cost.

The quota has dropped continually since 2014 in the overall Group: from 24.6 percent in 2014 to 22.5 percent in 2017. It has also dropped internationally: from 16.6 percent in 2014 and 2015 as well as 16,2 percent in 2016 to 16 percent in 2017. In Germany, the ratio has decreased for the first time since 2014 to 35.4 percent.

in bn. €	PA [a] adjusted 2017	EWC [b] 2017	TWC [c] 2017	Revenue [d] 2017	TWQ [e] adjusted 2014	TWQ [e] adjusted 2015	TWQ [e] adjusted 2016	TWQ [e] adjusted 2017
Germany	8.1	0.8	8.9	25.2	35.9%	35.9%	35.9%	35.4%
International	6.8	1.1	7.9	49.7	16.6%	16.6%	16.2%	16.0%
Group (total)	14.9	1.9	16.9	74.9	24.6%	23.8%	23.0%	22.5%

[a] Personnel cost
[b] External workforce cost: cost of leased and temporary staff + cost of freelancers and consultants
[c] Total workforce cost: external workforce cost + personnel cost adjusted for special factors
[d] As revenue allocation is separated into Germany/international from an HR perspective, this reflects employee location, unlike the financial report, which allocates revenue to the country where it was generated.
[e] Total workforce quote = TWC/revenue

ENERGY

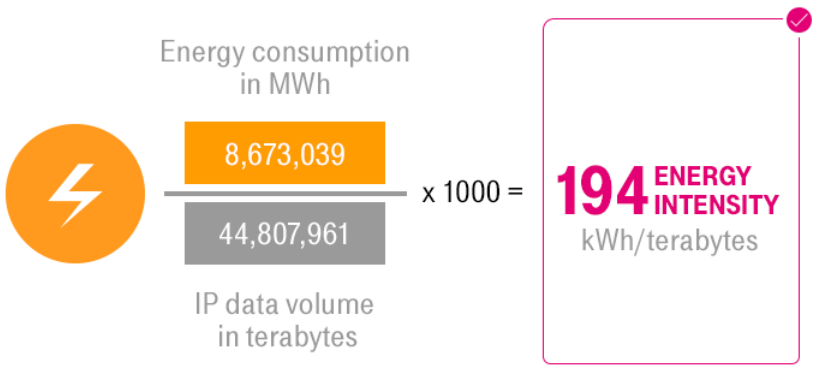
ENERGY INTENSITY ESG KPI DEUTSCHE TELEKOM GROUP

Since 2016, we have reported on the Energy Intensity ESG KPI. In contrast to the existing Energy Consumption ESG KPI, the new ESG KPI shows energy consumption in proportion to the transmitted data volumes. Using data volume as a reference parameter makes it possible to create a direct link to the performance of our networks. The KPI is reported for DT Group EU and T-Mobile US.

The ESG KPI figure also takes into account total energy consumption for all energy sources – fuel, gas, district heating and electricity. The data volume is composed of the transmitted IP data volumes (including Voice over IP, Internet, IP-TV).

Reporting against standards

The Energy Intensity ESG KPI is relevant for the GRI indicator GRI 302-3 (Energy Intensity). This information is relevant for EFFAS KPI E01-01 (Energy consumption, total). It is furthermore relevant for criterion 12 (Resource management) of the German Sustainability Codex. It is also used for reporting on the Global Compact Principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

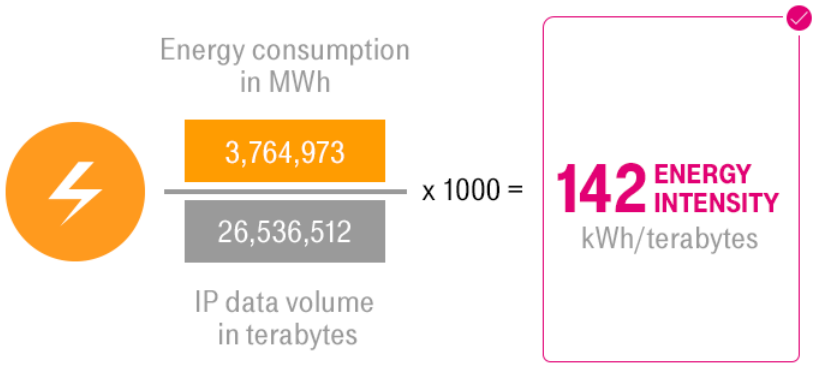


Data assured by PwC. For detailed assurance comments see "DT Group in Germany".

ENERGY INTENSITY ESG KPI DT GROUP IN GERMANY

Since 2016, we have reported on the Energy Intensity ESG KPI. In contrast to the existing Energy Consumption ESG KPI, the new ESG KPI places the energy consumption into a ratio with the managed data volumes. Using data volume as a reference parameter makes it possible to create a direct link to the performance of our networks.

The ESG KPI figure also takes into account total energy consumption for all energy sources – fuel, gas, district heating and electricity. The data volume is composed of the transported IP data volumes (including IP telephone, internet, IP-TV).



Data assured by PwC. Data is partly based on estimates, assumptions and extrapolations. The calculation method was adjusted in 2017. Values cannot be directly compared to the previous year.

Reporting against standards

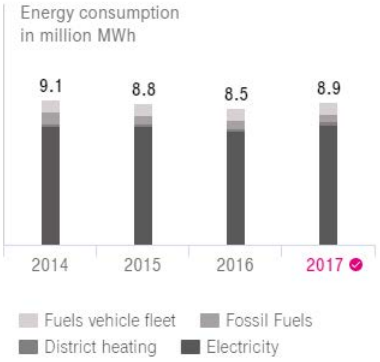
The Energy Intensity ESG KPI is relevant for the GRI indicator GRI 302-3 (Energy Intensity). This information is relevant for EFFAS KPI E01-01 (Energy consumption, total). It is furthermore relevant for criterion 12 (Resource management) of the German Sustainability Codex. It is also used for reporting on the Global Compact Principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

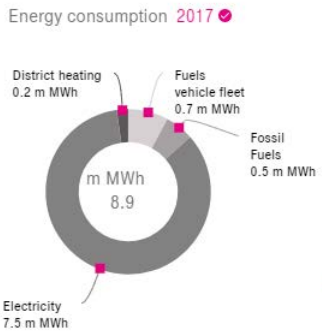
TOTAL ENERGY CONSUMPTION

Total energy consumption indecreased by 5 percent year over year as a result of the rapidly growing data traffic and the corresponding continuous network expansion. In order to achieve our climate goal, we are focusing on areas with especially high energy consumption, such as our networks and data centers. For instance, we are migrating our network infrastructure to IP technology, which is not only more powerful, but also consumes less electricity than existing technologies.

Reporting against standards

By reporting our energy consumption from primary energy sources, we partially cover the GRI 302-1 (Energy consumption within the organization) GRI indicator and the E01-01 (Energy consumption, total) EFFAS indicator. By reporting fleet energy consumption, we also partially cover the GRI 307-1 (Environmental impact of transportation) GRI indicator. This data is also relevant for criterion 11 of the German Sustainability Code (Usage of natural resources). It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).





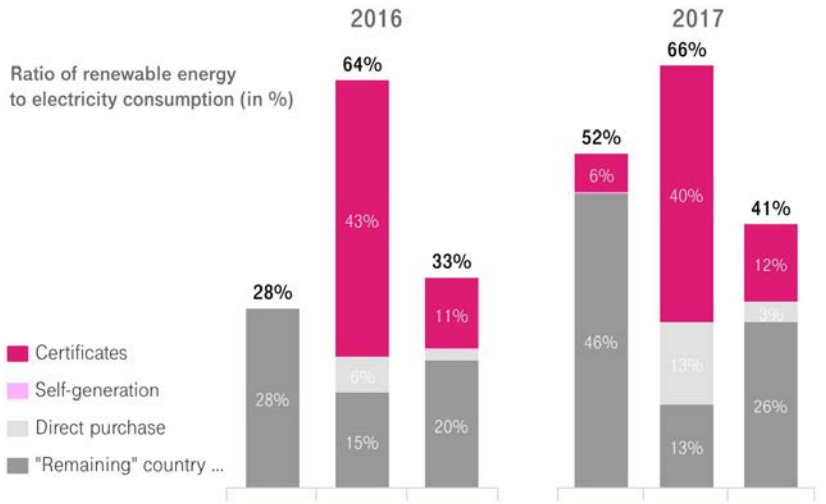
Data verified by PwC. For detailed audit comments see "DT Group in Germany" and "T-Mobile USA".

Data verified by PwC. For detailed audit comments see "DT Group in Germany" and "T-Mobile USA".

RENEWABLE ENERGY ESG KPI

Due to the steadily increasing relevance and strong reference to the integrated climate strategy, the data on "Renewable energies" was reported for the first time in 2015 and listed for the first time as an ESG KPI in 2016. The KPI is calculated based on the share of renewable energy in total electricity consumption. We are committed to increasing our reliance on renewable energy throughout the Group. To this end, all European national companies can purchase renewable energy directly as well as energy certificates if needed.

The share of energy from renewable sources used by Deutsche Telekom was 41 percent in 2017. The average share of renewable energy in the country mix in all countries where Deutsche Telekom is active was 30 percent. The share of renewable energy purchased through the country mix amounted to 26 percent ("remaining" country mix).

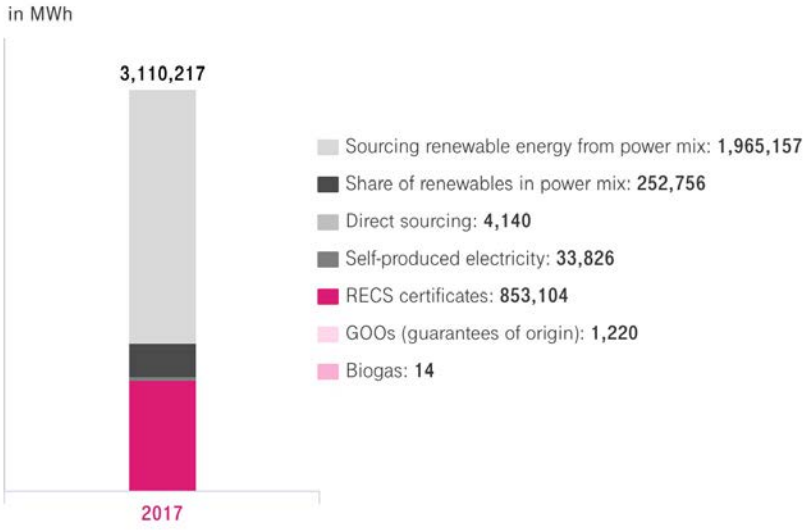


	D	EU [b]	Konzern	D	EU [b]	Konzern
Electricity from renewable energy (in GWh)	803	1 103	2 333	1 497	1 154	3 110
Total electricity consumption (in GWh)	2 840	1 720	7 107	2 879	1 738	7 546
Renewable Energy (ESG KPI)	28%	64%	33%	52% ✓	66%	41% ✓
Ren. energy mix [c]	28%	26%	23%	49%	25%	30%
Certificates	0%	43%	11%	6%	40%	12%
Self-generation	0.10%	0.03%	0.05%	0.12%	0.02%	0.05%
Direct purchase	0.0%	5.5%	1.7%	0.0%	12.9%	3.5%
Remaining" country mix [a]	28%	15%	20%	46%	13%	26%

a) The "remaining" country mix represents the remaining share of renewable energies from the national energy mix, after subtracting direct purchases, certificates, and self-generation.
b) EU = National companies in Europe without Germany and T-Systems.
c) The country mix is u sed as the basis when calculating the share of renewable energy in total electricity consumption, as no data is available regarding the share of renewable energy in the residual mix.. The country mix was calculated based on publicly available sources (European Commission, US Energy Information Administration). The share of renewable energy in the residual mix is typically lower than the country mix. For Germany, the EEG surcharge paid is taken into account when calculating the share of renewable energy.
✓ Data assured by PwC. The 2017 calculation was based on the utility's electricity mix for the first time, which also takes renewable energy from the EEG surcharge into account for Germany.. The 2017 calculation was based on the utility's electricity mix. If this is was not possible, the residual mix or country mix was used. Values cannot be directly compared to the previous year. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".

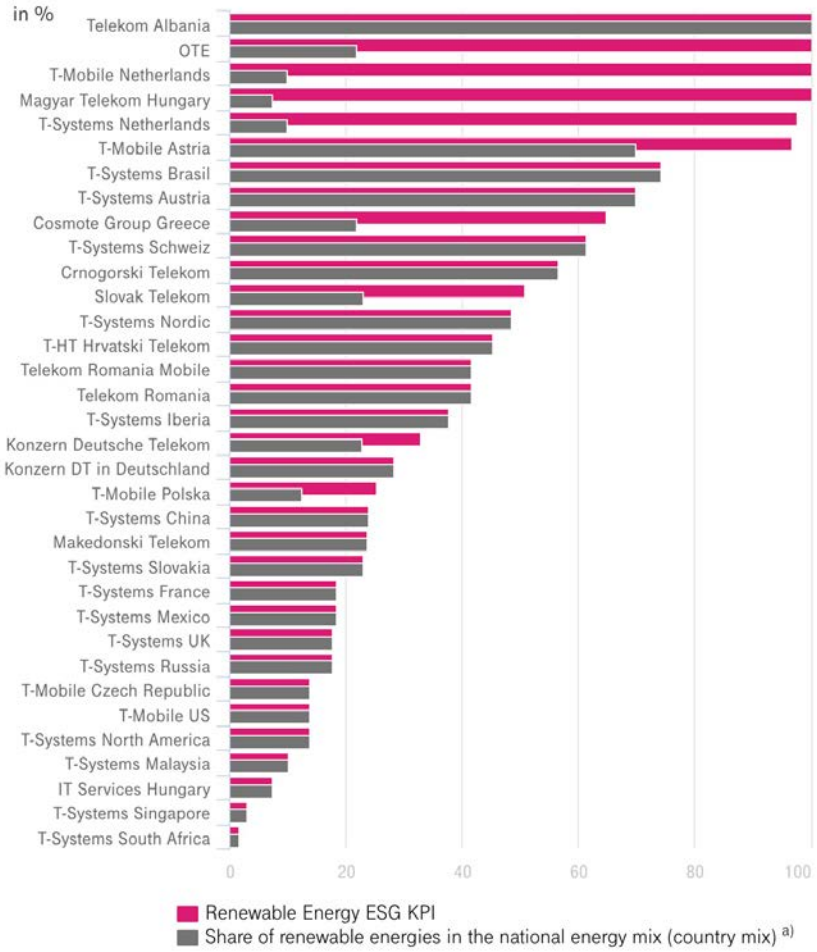
RENEWABLE ENERGY

We are committed to increasing our reliance on renewable energy throughout the Group. To this end all European national companies can also purchase renewable energy certificates if needed.



RENEWABLE ENERGY IN THE NATIONAL COMPANIES

Since 2016, we have reported on the Renewable Energy ESG KPI. It is calculated based on the share of renewable energy in total electricity consumption, and is compared here to the share of renewable energy in the national energy mix (country mix) for all national companies.



a) The country mix is used as the basis when calculating the share of renewable energy in total electricity consumption, as no data is available regarding the share of renewable energy in the residual mix. The country mix was calculated based on publicly available sources (European Commission, US Energy Information Administration). The share of renewable energy in the residual mix is typically lower than the country mix. For Germany, the EEG surcharge paid is taken into account when calculating the share of renewable energy.

DECOUPLING POWER CONSUMPTION AND CO_2 EMISSIONS

Deutsche Telekom was able to reduce the emissions generated by its electricity consumption to zero from 2008 to 2012 by purchasing RECS certificates (Renewable Energy Certificate System). However, we feel that these certificates have not had as positive an impact on the environment as we had hoped. Demand for certificates was generally limited. As a result, RECS certificates do not make a noticeable contribution to encouraging the expansion of renewable energy sources. That is why we feel it makes more sense both in terms of ecological and economic aspects to invest in reducing our energy consumption and increasing our energy efficiency than to purchase RECS certificates.

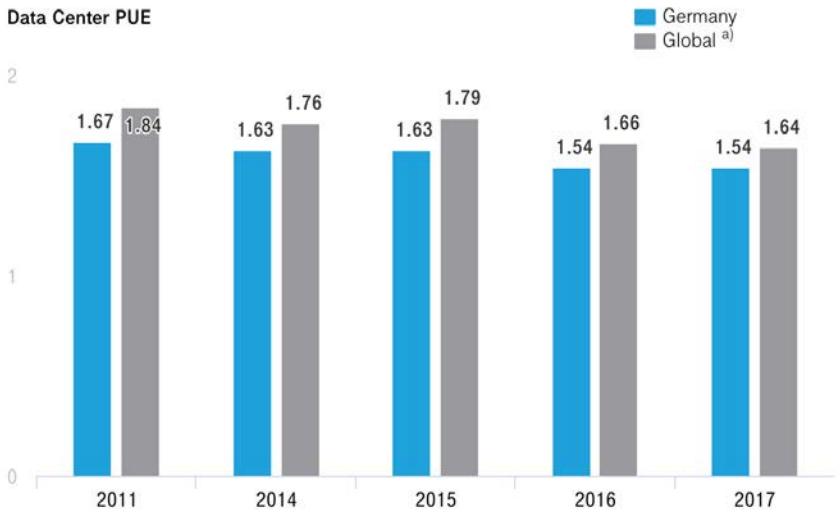
Reporting against standards

By providing this information, we fully cover the E16-05 (Alternative energy consumption) EFFAS indicator. This data is also relevant for criteria 3 (Strategic analysis, strategy and goals), 11 and 12 (Usage of natural resources) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

1 Increased procurement of power from cogeneration (CHP) plants
2 Rise in energy consumption for technical reasons
3 Power utilities no longer provide data on share of energy otained from cogeneration
4 Power utilities no longer provide data for their power mix > calculation based on power mix for Germany
5 Purchase of power from renewable energy sources
6 All electricity requirements covered directly or indirectly by renewable resourcesn
7 No purchase of RECS-certificates.

PUE ESG KPI

The efficiency of our data centers is monitored with the so-called PUE factor (Power Usage Effectiveness). It serves as an indicator for improvements in energy efficiency of our data center infrastructure.
It is calculated as the ratio between the total electrical energy consumed by the data center and the electrical energy consumption of the IT.
Between 2011 and 2017, we were able to reduce the average global PUE value of our T-Systems data centers from 1.85 to 1.64.
For Germany, a decline from 1.67 to 1.54 could be achieved between 2008 and 2017.



a) International + DT Group in Germany

CO_2 EMISSIONS

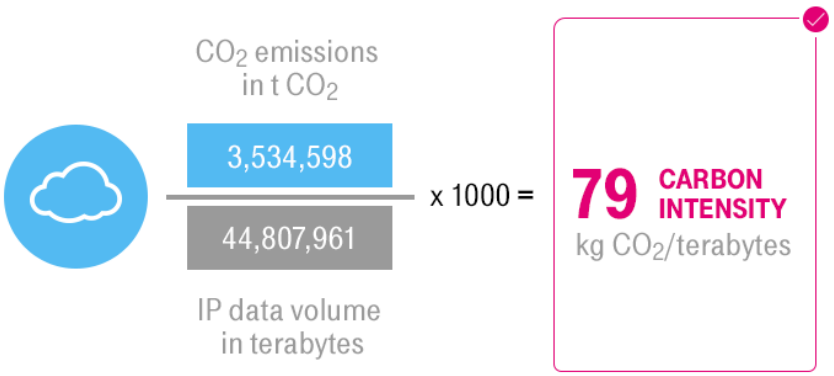
CARBON INTENSITY ESG KPI DEUTSCHE TELEKOM GROUP

The Carbon Intensity ESG KPI was a new addition to the reporting this year. In contrast to the existing CO_2 Emissions ESG KPI, the new ESG KPI shows the CO_2 emissions in proportion to the transmitted data volumes. Using data volume as a reference parameter makes it possible to create a direct link to the performance of our networks. The KPI is reported for DT Group EU and T-Mobile US.

The ESG KPI figure also takes into account total CO_2 emissions for all energy sources – fuel, gas, district heating and electricity, The data volume is composed of the transmitted IP data volumes (including Voice over IP, Internet, IP-TV).

Reporting against standards

The Carbon Intensity ESG KPI is relevant for the GRI indicator GRI 305-4 (Greenhouse Gas Emissions Intensity). This information is relevant for EFFAS KPI E02-01 (Greenhouse gas emissions Scope 1-3). It is furthermore relevant for criterion 13 (Climate-relevant emissions and objectives) of the German Sustainability Codex. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



Data assured by PwC. For detailed assurance comments see "DT Group in Germany".

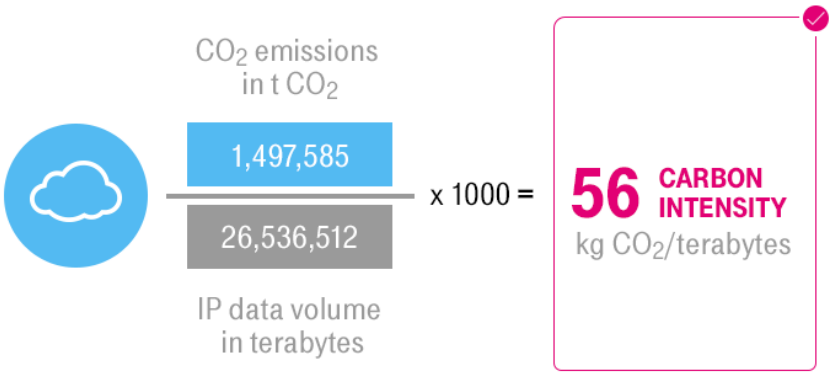
CARBON INTENSITY ESG KPI DT GROUP IN GERMANY

The Carbon Intensity ESG KPI was a new addition to the reporting this year. In contrast to the existing CO_2 Emissions ESG KPI, the new ESG KPI shows the CO_2 emissions in proportion to the transmitted data volumes. Using data volume as a reference parameter makes it possible to create a direct link to the performance of our networks.

The ESG KPI figure also takes into account total CO_2 emissions for all energy sources – fuel, gas, district heating and electricity, The data volume is composed of the transmitted IP data volumes (including Voice over IP, Internet, IP-TV).

Reporting against standards

The Carbon Intensity ESG KPI is relevant for the GRI indicator GRI 305-4 (Greenhouse Gas Emissions Intensity). This information is relevant for EFFAS KPI E02-01 (Greenhouse gas emissions Scope 1-3). It is furthermore relevant for criterion 13 (Climate-relevant emissions and objectives) of the German Sustainability Codex. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



Data assured by PwC. Data is partly based on estimates, assumptions and extrapolations. The calculation method was adjusted in 2017. Values cannot be directly compared to the previous year.

TOTAL CO_2E EMISSIONS (SCOPE 1 - 3)

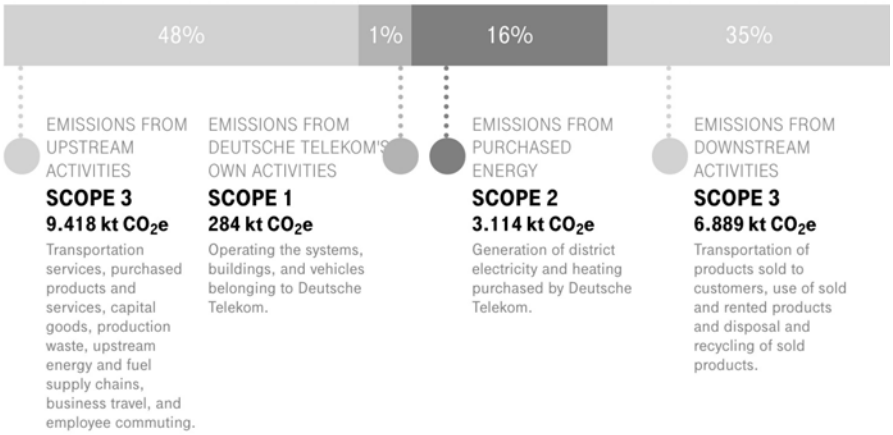
Since the CR report 2016 we provide the first general overview of all CO_2 emissions by Deutsche Telekom (Scope 1-3). To ease comparisons with the shown Scope 3 emissions presented in CO_2 equivalents, the Scope 1 and Scope 2 emissions were converted into metric kilotons of CO_2 equivalents. Emissions are presented along Deutsche Telekom's supply chain. This allows for an overview of where most of the emissions are produced.

Reporting against standards

By measuring progress based on our CO_2 Emissions ESG KPI , we report our CO_2 emissions in accordance with the Greenhouse Gas Protocol together with our self-defined CO_2 reduction goal, thereby complying with criterion 13 of the German Sustainability Code (Greenhouse gas emissions). By reporting this data, we fully cover the GRI 305-1 (Direct GHG emissions), GRI 305-2 (Energy indirect GHG emissions) and GRI 305-3 (Other indirect GHG emissions) GRI indicators and partially cover the E02-01 (Scope 1-3 greenhouse gas emissions) EFFAS indicator. This data is also relevant for criteria 7 (Rules and processes), 11 and 12 (Usage of natural resources) and 13 (Greenhouse gas emissions) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

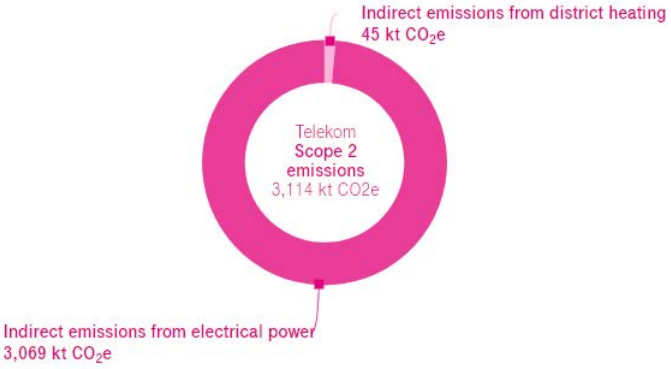
CO_2e-Emissionen (Scope 1-3)

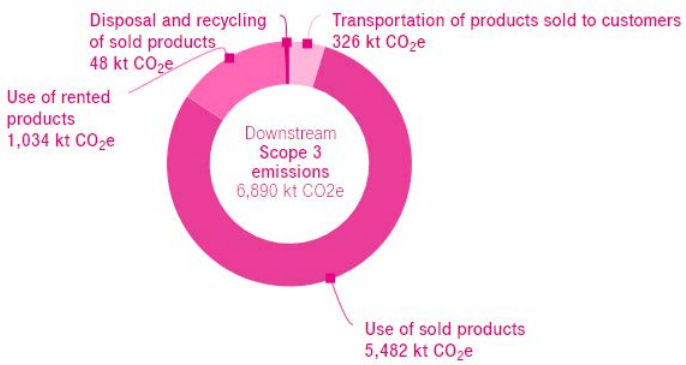
Interactive graphics



CO_2e-Emissionen (Scope 1-3)

Interactive graphics





CO2-EMISSIONEN GESAMT (SCOPE 1 & 2)

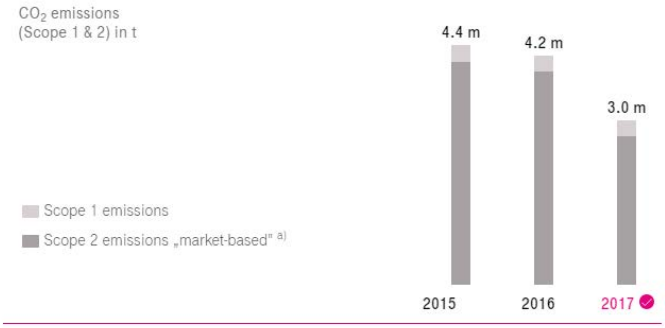
Our CO_2 emissions are largely driven by our electricity consumption. That's why the table below contains very detailed information about the Group numbers for the Scope 2 emissions resulting from our electricity consumption. We differentiate between the established market-based and location-based methods, thereby adhering to the GHG Protocol Scope 2 Guidance.

The market-based method is the leading method in the CR report starting this reporting year. This method is used to calculate emissions with a specific emissions factor (provider factor) per DT company. This factor depends on a company's actual energy procurement (electricity mix); procuring renewable energy (direct purchase, certificates) reduces emissions.[a])

In contrast to the market-based method, with the location-based method the emissions factors for the respective country are used (the country mix factor of the International Energy Agency (IEA). A company's actual energy procurement (electricity mix) is hence not taken into account, so neither is the procurement of renewable energy.

For reasons of continuity, we also report the emissions calculated with the previous method. This means that - just like with the location-based

method - the IEA factors were used, but that emission reductions from the procurement of renewables (direct purchase, certificates) were also taken into account.



Scope 1 and Scope 2 „market-based"

CO_2 emissions (Scope 1) in t	299 476	290 541	283 349
CO_2 emissions (Scope 2 „market-based") in t	4 064 083	3 878 321	2 719 076

Scope 2 („location based")

CO_2-emissions (Scope 2 „location-based") in t	3 573 676	3 406 188	3 435 805
CO_2-emission reduction through renewable energy certificates (in metric tons)	381 989	413 236	468 323
CO_2-emissions (Scope 2) in t	3 183 298	2 980 628	2 967 482

[a]) If no supplier factors are available for the market-based method, the country-related residual factor is used (based on the RE-DISS project of the European Commission, which assessed the national share of renewables). If there is no residual factor available either, the IEA factor is used (same as with the location-based method). As a rule, the value of the residual factor is higher than the IEA's country mix factor.)
[b]) Mögliche Stromzertifikate umfassen Renewable Energy Certificate System (RECS), Guarantees of Origin (GoO) and Power Purchase Agreements (PPA).

Change compared to last year: The Scope 2 emissions calculated according to the market-based method are about 30% less compared to last year. The decline is primarily due to more favorable supplier factors, the direct purchase of renewables from our national companies in Croatia, the Netherlands and the U.K., and the in part additional recognition of energy certificates (RECS, GOO, PPA) b) at our national companies in Greece, Hungary Germany, Austria as well as in Poland and Slovakia.

Reporting against standards

By reporting our direct and indirect CO2 emissions (Scope 1 & 2) in accordance with the Greenhouse Gas Protocol, we fully cover the GRI 305-1 (Direct GHG emissions) and GRI 305-2 (Energy indirect GHG emissions) and partially cover the E02-01 (Total Scope 1-3 greenhouse gas emissions) EFFAS indicator. This data is also relevant for criteria 11 and 12 (Usage of natural resources) and 13 (GHG emissions) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

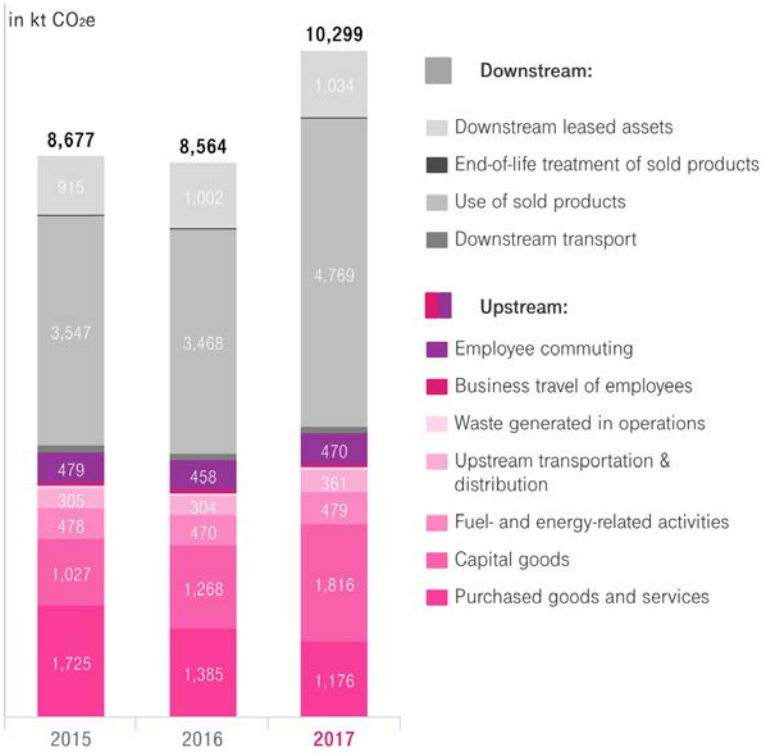
a) If no supplier factors are available for the market-based method, the country-related residual factor is used (based on the RE-DISS project of the European Commission, which assessed the national share of renewables). If there is no residual factor available either, the IEA factor is used (same as with the location-based method). As a rule, the value of the residual factor is higher than the IEA's country mix factor.)
b) Mögliche Stromzertifikate umfassen Renewable Energy Certificate System (RECS), Guarantees of Origin (GoO) and Power Purchase Agreements (PPA).
✓ Data verified by PwC. Values for 2016 have been adjusted retrospectively. For detailed audit comments see "DT Group in Germany" and "T-Mobile USA".
✓ Data assured by PwC. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".
✓ Data assured by PwC. The 2017 calculation was based on the utility's electricity mix. If this is was not possible, the residual mix or country mix was used. Values cannot be directly compared to the previous year. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".

TOTAL CO_2 EMISSIONS (SCOPE 3) DEUTSCHE TELEKOM IN EUROPE*

The majority of our total emissions can be classified as Scope 3 emissions. This includes emissions generated by business trips, commuting, our supply chain and the use of products and services. We have been recording Scope 3 emissions at DT Group in Germany since 2013. We are reporting our Scope 3 emissions for the EU here for the first time. The basic data used to calculate Scope 3 emissions is covered in the benchmarking tool. You will find more information on recording Scope 3 emissions along the value chain here.

Reporting against standards

By reporting this data, we fully cover the GRI 305-3 (Other indirect GHG emissions) and the E02-01 (Total Scope 1-3 greenhouse gas emissions) EFFAS indicator. This data is also relevant for criteria 11 and 12 (Usage of natural resources) and 13 (GHG emissions) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



* DT Group in Germany plus European fixed /mobile network operators

ENABLEMENT FACTOR

ENABLEMENT FACTOR FOR DT GROUP IN GERMANY

We also calculate the positive CO_2 effects facilitated for our customers through the use of our products. We combine this figure with our own CO_2 emissions, then use this enablement factor to measure our overall performance in relation to climate protection. According to this figure, the positive CO2 effects facilitated for our customers in Germany were 71 percent higher in 2017 than our own CO_2 emissions (enablement factor of 1.71 to 1).

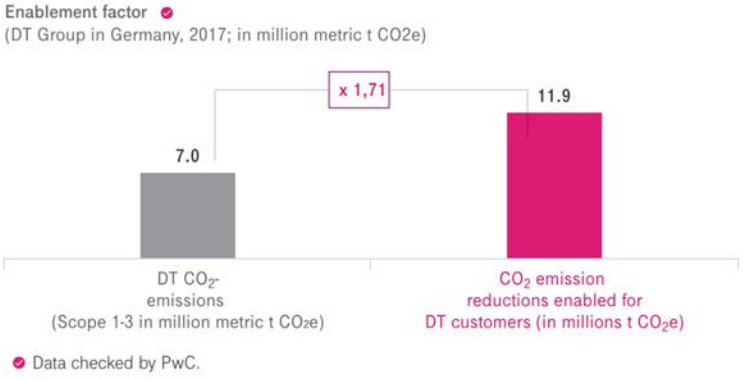
The positive CO_2 effects facilitated for our customers through the use of our products and solutions rose from 8.6 to 11.9 million tons in 2017. The main drivers for this development were the three categories audio conferencing, ride sharing and accommodation sharing which were not yet reported in the previous year. The strong increase in the use of our emission-reducing products and services (+ 3.5 million tons), especially in the segments connected car (+ 1.5 million tons), broadband services (+ 0.7 million tons) and smart logistics (+ 0.4 million tons) were also significant for this development.

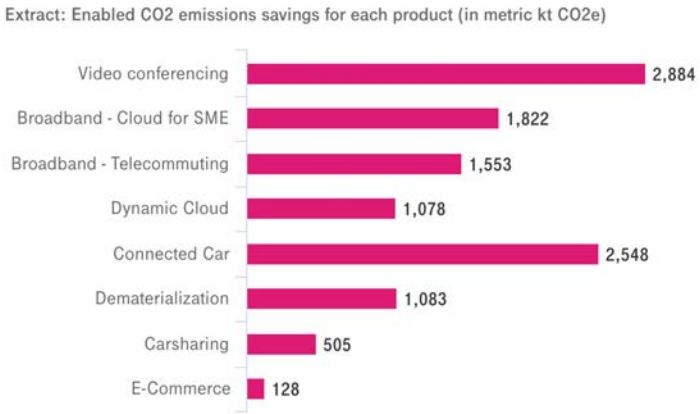
Taking into account the latest, slightly increased Scope 3 emission values and the positive CO_2 effects on the customer side (now including smart logistics), the value of the Enablement Factor ESG KPI for the Group in Germany would be 1.70 (calculated based on Scope 1-3 in metric tons CO_2e: 7.5 million; positive CO_2 effects: 12.8 million metric tons CO_2e)

Reporting against standards

Information on the enablement factor is relevant for GRI Indicator GRI 305-5 (Reduction of Greenhouse Gas Emissions). The information is relevant for the EFFAS KPI img S13-01 (Intermodality). It is furthermore relevant for criterion 13 (Climate-relevant emissions and objectives) of the German Sustainability Codex. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

ESG KPI enablement factor: positive CO_2 effects facilitated for our customers.





Other (<100kt): Dynamic workplace, smart logistics, smart metering, broadband – e-learning

ENABLEMENT FACTOR FOR DEUTSCHE TELEKOM GROUP IN EUROPE

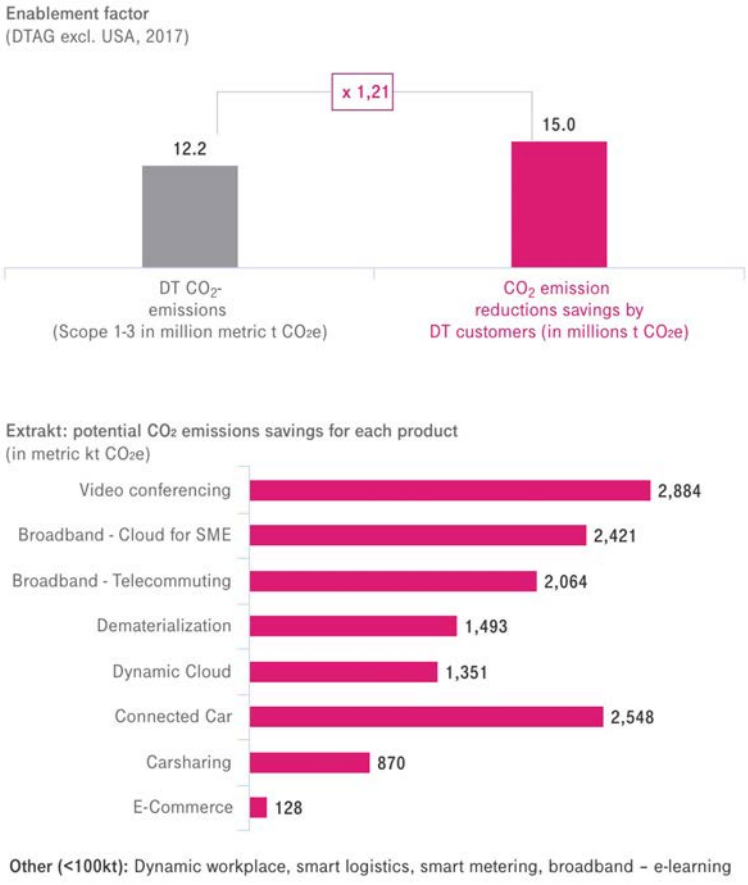
We also calculate the positive CO_2 effects facilitated for our customers through the use of our products. We combine this figure with our own CO_2 emissions, then use this enablement factor to measure our overall performance in relation to climate protection. According to this figure, the positive CO_2 effects facilitated Europe-wide for our customers were 21 percent higher in 2017 than our own CO_2 emissions (enablement factor of 1.21 to 1).

The positive CO_2 effects facilitated for our customers through the use of our products and solutions rose from 8.6 to 12.8 million tons in 2017. The main drivers for this development were the three categories audio conferencing, ride sharing and accommodation sharing which were not yet reported in the previous year. The strong increase in the use of our emission-reducing products and services (+ 3.5 million tons), especially in the segments connected car (+ 1.5 million tons), broadband services (+ 0.7 million tons) and smart logistics (+ 0.4 million tons) were also significant for this development.

Reporting against standards

Information on the enablement factor is relevant for GRI Indicator GRI 305-5 (Reduction of Greenhouse Gas Emissions). The information is relevant for the EFFAS KPI img S13-01 (Intermodality). It is furthermore relevant for criterion 13 (Climate-relevant emissions and objectives) of the German Sustainability Codex. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

ESG KPI enablement factor: positive CO_2 effects facilitated for our customers.



MOBILITY

NUMBER OF VEHICLES

The total number of vehicles at our company decreased year over year by around 2 percent. The DT Group in Germany, in particular, was able to reduce the number of vehicles in its fleet. For detailed comments on the figures for each individual company, please refer to the interactive benchmarking tool. You can read more about our Green Car Policy, alternative engines and our goals for climate-friendly mobility here.

We were able to significantly increase the total number of vehicles with alternative drives in our fleet by around 3 percent from the previous year. We continue to focus on alternative and fuel-efficient engines - which of course must also be financially viable - when purchasing new company cars and service vehicles. You will find more information on Deutsche Telekom's climate friendly fleet management policies here.

Reporting against standards

Logistics and transport are carried out by service providers at Deutsche Telekom. The environmental impacts of transportation are influenced by the contractual arrangements with service providers. This data is also relevant for criterion 11 (Usage of natural resources) of the German Sustainability Code.

	2014	2015	2016	2017
Total number	**43 661**	**42 186**	**41 663**	**40 768**
Number of vehicles with diesel engines	35 352	35 369	34 941	34 640
Number of vehicles with gas engines	8 051	6 551	6 396	5 792
Number of alternative fuel vehicles	258	266	326	336
Number of company cars	13 714	12 504	12 161	11 836
Number of service vehicles	29 947	29 682	29 502	28 932

FUEL CONSUMPTION

Overall fuel consumption of diesel as well as gas-powered company cars decreased by around 4 percent. Particularly DT Group in Germany was able to substantially reduce fuel consumption. For detailed comments on the figures for each individual company, please refer to the interactive benchmarking tool.

Reporting against standards

Logistics and transport are carried out by service providers at Deutsche Telekom. The environmental impacts of transportation are influenced by the contractual arrangements with service providers. This data is also relevant for criterion 11 (Usage of natural resources) of the German Sustainability Code.

in liter	2014	2015	2016	2017
Fuel consumption (total)	**76 384 782**	**71 926 080**	**67 813 891**	**65 383 394**
Fuel consumption by diesel-powered vehicles	58 134 595	54 646 907	51 097 161	49 272 738
Fuel consumption by gasoline-powered vehicles	17 864 399	16 705 590	16 575 266	16 033 893
Fuel consumption by vehicles with alternative drives	385 788	196 583	141 464	76 763
Fuel consumption by company cars	31 001 743	25 935 470	23 816 501	21 883 036
Fuel consumption by service vehicles	45 383 039	45 990 610	43 997 390	43 500 359

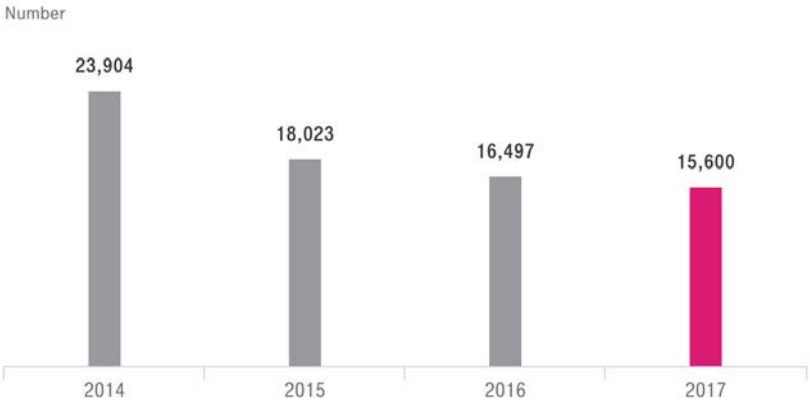
JOB TICKET

In 2017, 15,600 employees of the Deutsche Telekom Group in Germany used a discount season ticket provided by their employer to commute by public transport. This reduction is due to reduction in staff.

We offer regional discount season tickets (monthly or annually) to our employees at many of our German Deutsche Telekom sites, especially in high-density population areas. The offer encourages our employees to use climate-friendly public transportation and helps them keep their commuting costs down.

Reporting against standards

By reporting on the use of discount season tickets, we partially cover the V04-13 (Percentage of services to reduce impact on climate) EFFAS indicator. This data is also relevant for criteria 2 (Implementation of the sustainability strategy) and 10 (Innovation and product management) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



USED CELL-PHONE COLLECTION AND WASTE VOLUME

We are reporting the Take Back Mobile Devices ESG KPI img based on the reference value "number of devices in circulation." This makes it possible to more precisely illustrate the ratio of the number of cell phones brought to market to the number of used devices collected. When customers use the devices for longer periods of time, the environment benefits from this decision and, as a result, this has a positive impact on the KPI. Around 308 thousand mobile devices were collected throughout the Group (not including TMUS, AMC, Maktel, Crnogorski) in 2017, a slight decrease compared to the previous year. This decrease against the previous year was driven above all by measures taken by our national company in the Netherlands and Hungary. At the same time, the number of devices brought into circulation in the majority of our subsidiaries dropped.

At TMUS just under 4 million mobile devices were collected there alone. The KPI would be 100.7 for TMUS and 85.2 for Deutsche Telekom incl. TMUS.

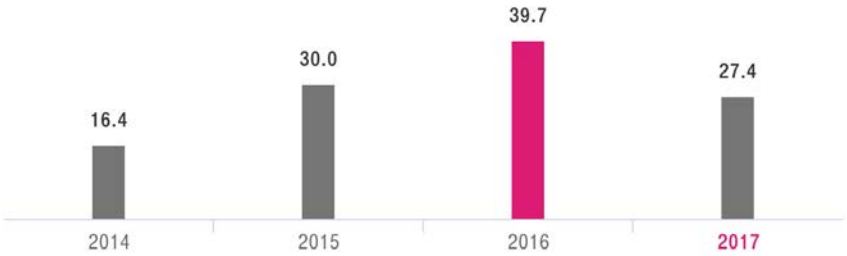
The aim of the scheme to take back old cell phones is to give them a second life and, if that isn't possible, to properly recycle them to recover the valuable raw materials inside them. Thanks to this, over 3 million used cell phones have been reused or recycled in Germany since 2003, thus conserving resources. In this way, we have helped to improve the eco-balance of mobile devices.

The Take Back Mobile Devices ESG KPI measures the ratio of collected devices (in thousands) to the number of devices in circulation (in millions). The collected devices are recorded in kilograms or in units. When using kilograms, we apply a Group-wide conversion factor of 7.25 units per kilogram unless another conversion factor is typically used in that country. Mobile devices in circulation include smartphones, simple phones, tablets and cordless phones. Units are reported by Procurement for reasons of data quality.

Reporting against standards

By reporting the Take Back Mobile Devices ESG img KPI img as an indicator of progress achieved in the resource-efficient and environmentally friendly use of products, we partially cover the E14-01 (Recycling ratio) EFFAS indicator. This data is also relevant for criteria 7 (Rules and processes), 10 (Innovation and product management), 11 and 12 (Usage of natural resources) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

Cell phones collected vs. devices sold [a]
(thousand/million pieces)



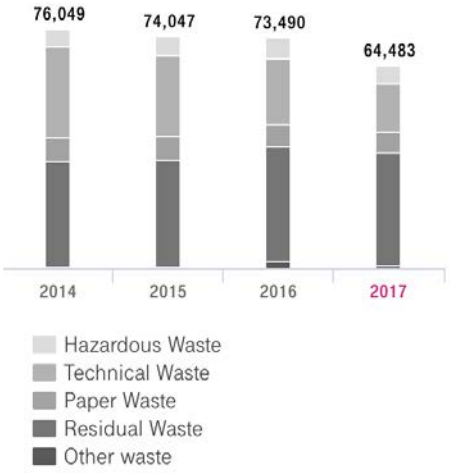
a) The Group value includes companies that have submitted the data necessary to calculate the KPI (currently e.g. without T-Mobile US, Crnogorski Telekom, Maktel and Telekom Albania). T-Systems is not relevant.

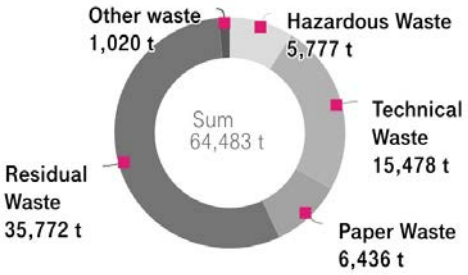
WASTE GENERATION

The amount of waste produced throughout the Group was reduced by 16% in comparison with 2016. The reduction can primarily be attributed to the reduction of technical waste. The amount of technical waste fluctuates from year to year as the result of projects that are conducted at irregular intervals. For detailed comments on the figures for each individual company, please refer to the interactive benchmarking tool.

Reporting against standards

By reporting the amount of waste we generate, we partially cover the GRI 306-2 (Waste by type and disposal method) GRI indicator and the E04-01 (Total waste in tonnes) EFFAS indicator. This data is also relevant for criterion 11 (Usage of natural resources) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



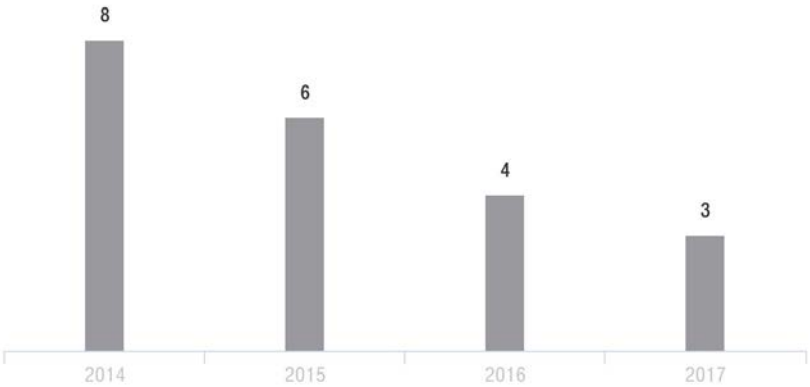


COPPER CABLE RECOVERED

In 2017, deutsche Telekom removed more than 3,200 metric tons of copper cable from duct systems in Germany alone. The cable is processed in accordance with environmental standards at certified waste disposal facilities and up to 90 percent of the material was recycled.

Reporting against standards

By reporting the amount of waste we generate, we partially cover the GRI 306-2 (Waste by type and disposal method) GRI indicator and the E04-01 (Total waste in tonnes) EFFAS indicator. This data is also relevant for criterion 11 (Usage of natural resources) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



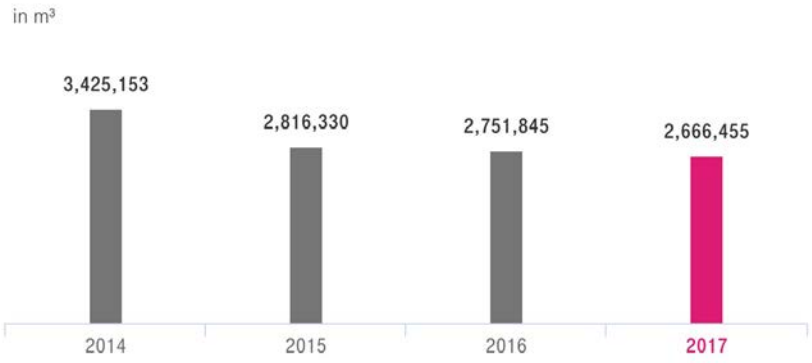
OTHER ENVIRONMENTAL DATA

WATER CONSUMPTION

Water consumption throughout the Group dropped by 3 percent. This development can be particularly attributed to reduced consumption at T-Mobile US. The value for 2016 was corrected compared to the information published in the previous year's report. For detailed comments on the figures for each individual company, please refer to the interactive benchmarking tool.

Reporting against standards

By reporting our water consumption we fully cover the E28-01 (Total water consumption) EFFAS indicator. This data is also relevant for criterion 11 (Usage of natural resources) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).

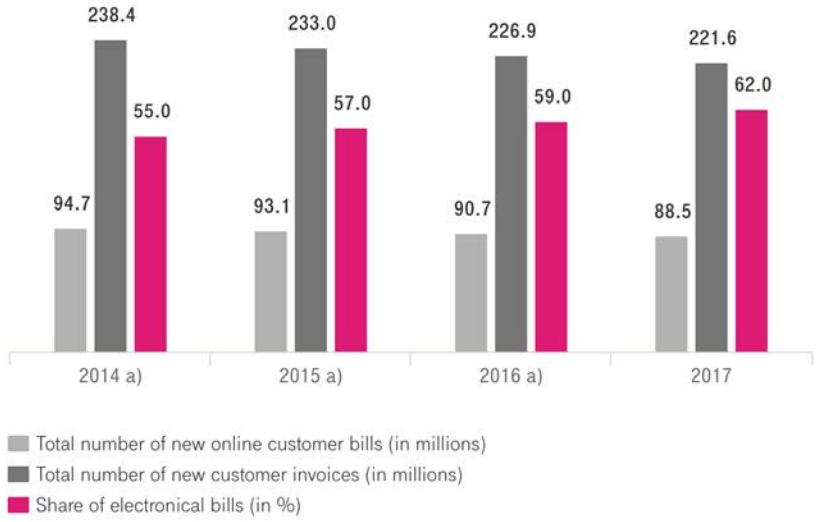


ONLINE CUSTOMER BILLS

More than 88 million online bills were sent out in 2017. This is the equivalent of over 60 percent of all bills and credit notes for fixed-line and mobile customers in Germany. The data was collected using a more precise calculation method in 2017.

Reporting against standards

By reporting data on the number of online customer bills, we partially cover the V04-13 (Percentage of services or products for increasing eco-efficiency of own products) EFFAS indicator. This data is also relevant for criteria 2 (Implementation of the sustainability strategy) and 10 (Innovation and product management) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).



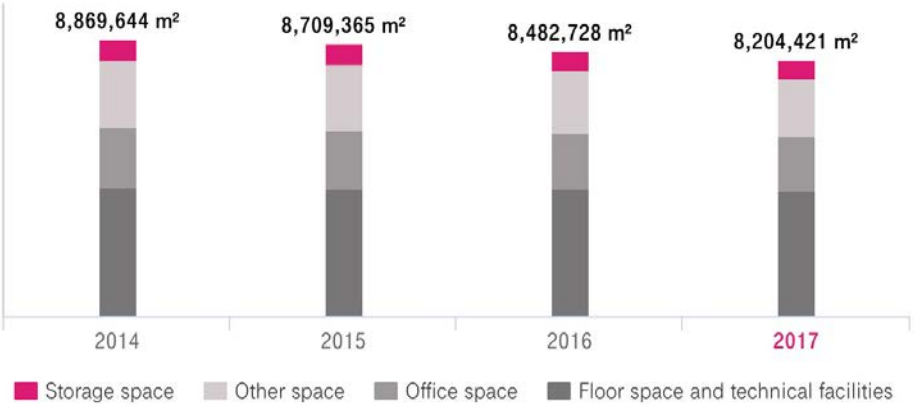
a) Die Daten wurden auf Basis einer neuen Berechnungsmethode rückwirkend korrigiert.

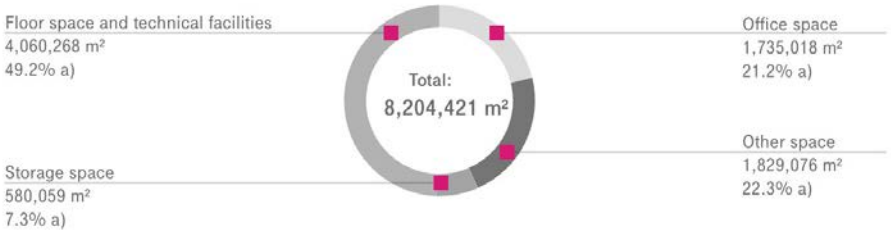
LAND USE

The property used by Deutsche Telekom in Germany covers most of our demands for technology, office and storage space as well as providing space for other needs. Total take-up decreased year-on-year with a total of 8,302 square meters of space being used.

Reporting against standards

This data is relevant for criterion 11 (Usage of natural resources). It is also used for reporting on the Global Compact principles 7 (Precautionary approach) and 8 (Promoting environmental responsibility).





a) Individual figures have been rounded.

SOCIAL INVOLVEMENT

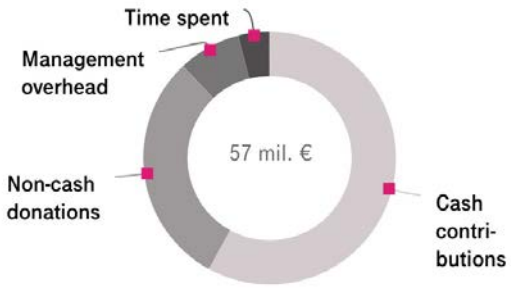
COMMUNITY INVESTMENT ESG KPI

We report a set of three KPIs for calculating the impact of our social commitment. They comprise the Community Investment ESG KPI, the Beneficiaries ESG KPI and the Media Literacy ESG KPI. Our activities are based on the methods employed by the London Benchmarking Group (LBG), which incorporate the aspects, "input," "output" and "impact".

The Community Investment ESG KPI illustrates activities in which Deutsche Telekom was involved in the community either financially, through its employees, or through donating materials.

The investment volume for our entire network infrastructure in 2017 was more than € 12 billion (with € 5.4 billion of this in Germany), and we are already providing LTE to 94 percent of the population in our national companies. What's more, we operate the largest fiber-optic network in Germany, with more than 455,000 kilometers of cables, and are driving the expansion of a large-scale NB-IoT infrastructure for the cities of the future. Thanks to the Internet rollout, our investments are making an important contribution to facilitating access to fast Internet for large sections of the public. This, in turn, is the foundation for the positive development of our business KPIs, e.g. the Media Literacy ESG KPI. Furthermore, our products and services are contributing to climate protection and resource efficiency. Our productsrange from ICT solutions such as video conferencing and Industry 4.0 to sustainable connected farming and Smart City concepts.

ESG KPI "Community Investment" (Input Split) 57 mil. €



Data audited by PwC. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".
Data is partly based on estimates, assumptions and projections.
Values for 2016 have been adjusted retrospectively.
Compared to the previous years there has been an increase in the monetary valuation of voluntary working hours.

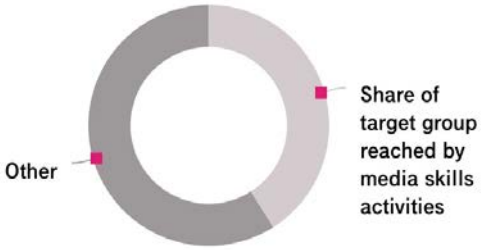
BENEFICIARIES AND MEDIA LITERACY ESG KPIS

The report comprises a set of three KPIs for calculating the impact of our social commitment. In addition to the Community Investment ESG KPI, we report the Beneficiaries and the Media Literacy ESG KPI here. Our activities are based on the methods employed by the London Benchmarking Group (LBG), which incorporate the aspects, "input," "output" and "impact".

The Beneficiaries ESG KPI reflects the number of people who got involved in community activities and the number of people in the target group that participate in or benefited from such activities (e.g. media literacy trainings, DSL connection in schools and crisis helpline).

The Media Literacy ESG KPI reflects the share of people we have reached through programs addressing this topic. This KPI establishes a direct correlation between these activities and our core business. The ESG KPI reached 41 percent by the end of 2017 and our aim is to achieve a share of 45 percent by 2020.

ESG KPI "Beneficiaries" 19 mil. persons ✓
ESG KPI "Media literacy" 41% ✓



✓ Data audited by PwC. For detailed assurance comments see "DT Group in Germany" and "T-Mobile USA".
Data is partly based on estimates, assumptions and projections.
Values for 2016 have been adjusted retrospectively.

ENGAGEMENT@TELEKOM

Employees at the national companies show their commitment to society in many different ways. This commitment (corporate volunteering) frequently focuses on helping people who are not yet able to help themselves - children and young people in need. Corporate volunteering is very popular at almost all of our national companies. Core data is collected within the context of international implementation of engagement@telekom.

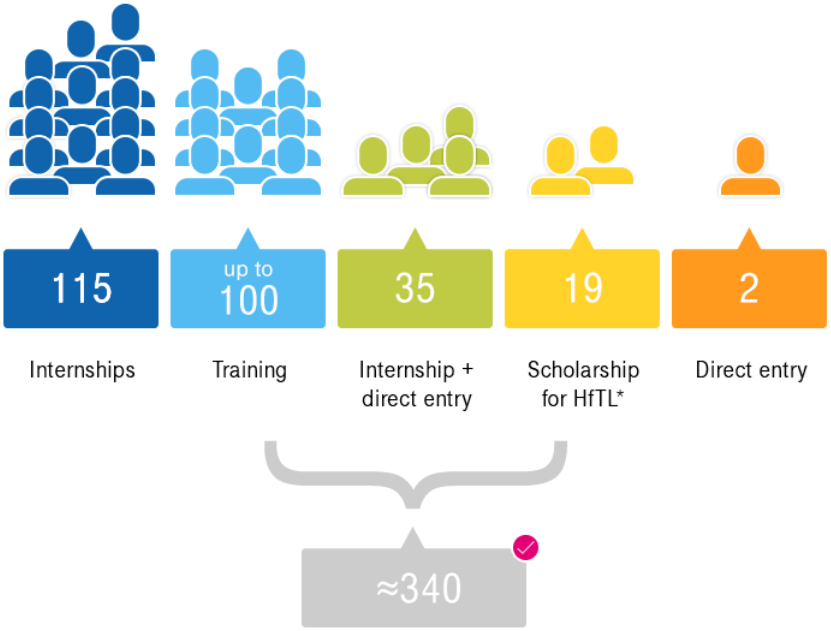
Number	2014	2015	2016 [a]	2017
Number of volunteering projects	168	274	285	379
Number of volunteers (employees)	25 211	31 355	30 259	28 477
Working hours	54 621	49 970	51 114	58 660

[a] The value for 2016 was corrected compared to the information published in the previous year's report.

SUPPORT FOR REFUGEES

In view of the massive challenges involved in aid work for refugees, our Board of Management set up its own task force in August 2015. It pools our various aid programs in Germany to ensure that support can be provided faster and with less red tape. In 2017, more than 100 intern positions and about the same number of apprentice positions have been filled with refugees. Deutsche Telekom employees also initiated over 100 corporate volunteering projects. Further information is available here.

TELEKOM STARTS 2017 (INCL. 70 FROM PROGRAMS STARTING IN 2016)



*) Leipzig University of Applied Sciences

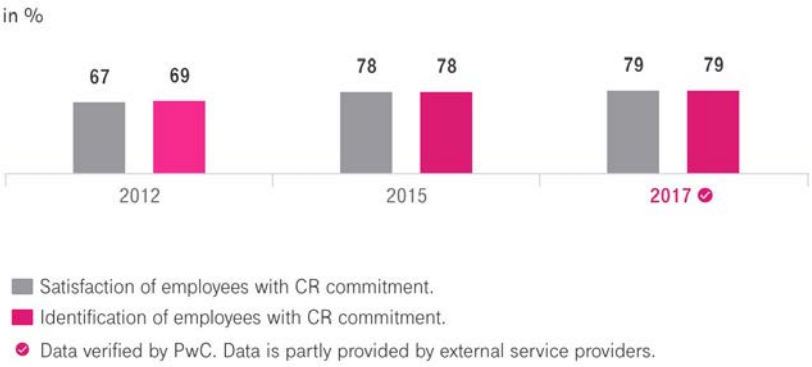
Data assured by PwC.

EMPLOYEE SATISFACTION

EMPLOYEE IDENTIFICATION WITH CR COMMITMENT ESG KPI

We use the Employee Identification with CR Commitment ESG KPI to determine the degree to which our staff identify with, or how satisfied they are, with our CR commitment. This is based on the Group employee survey (excluding T-Mobile US), which we conduct every two to three years.

The 2017 survey indicated - as in previous years - a considerable increase in employee identification and satisfaction with regard to our CR activities.



Reporting against standards

This data is relevant for criteria 7 (Control) and 14 (Employment Rights) of the German Sustainability Code. It is also used in our reporting on Global Compact Principles 3 (Freedom of association) and 6 (Elimination of discrimination).

SATISFACTION AND COMMITMENT INDEX

The Employee Satisfaction KPI has improved steadily in recent years. This is largely due to sets of measures which guarantee improvements right down to individual teams. We base this on the employee survey carried out every two years and monitor how effective these measures are through the half-yearly pulse survey. This allows us to continuously analyze and optimize our processes. It gives us the opportunity to continually improve employee satisfaction.

Satisfaction rate	2014	2015	2016	2017
Germany	86%	87%	88%	88%
International	82%	85%	86%	86%
Group (total)	84%	87%	87%	87%

Engagement-Index (Commitment-Index), scale of 1 to 5 [b]	2014 [a]	2015	2016 [a]	2017
All employees	4	4.1	4.1	4.1
All managers	4.4	4.5	4.5	4.5
Employees excl. managers	3.9	4.0	4.0	4.0

The calculated values are taken from the pulse and employee survey results current at the time. The most recent pulse survey was carried out in November 2017, the last employee survey also in 2017.

PULS-CHECK

Deutsche Telekom wants to pursue an open dialog and productive exchange with its employees. New working models and state-of-the-art communication options as well as regular employee surveys help us accomplish this. The main feedback tools which the Group uses to assess employee satisfaction include the employee survey, which is carried out every two years, and the semi-annual pulse survey, containing the 11 questions from the employee survey shown below.

Reporting against standards

This data is relevant for criteria 7 (Rules and processes) and 14 (Employee rights and diversity) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 3 (Freedom of association) and 6 (Elimination of discrimination).

High ratings = Very good, good/agree fully, agree.
Low ratings = Poor, very poor/do not agree, do not agree at all.
"Neither agree nor disagree" ratings are not included.
Explanations of questions asked:
Satisfaction = How do you feel in the company?
Product recommendation = I recommend the products/services of our company to potential customers outside of my work environment.
Employer attractiveness = I would recommend our company as a great place to work.
Changes = I can understand the changes in our company.
Strategy = I can clearly explain to others the strategy of Deutsche Telekom.
Collaboration = In my experience, we all work together as partners at Deutsche Telekom in the interests of the Group's success.
Workload/quality = In my team, the workload and quality requirements are consistent with one another.
Work-life balance = The current working hours allow a good balance between private (family/leisure act.) and job-related interests.
HR development = Our company offers sufficient training opportunities to support my professional development.
Processes = Processes and procedures allow me to effectively meet my (internal and/ or external) customers' needs.
Recognition = Considering all my efforts and achievements, I feel that I have received the appropriate amount of recognition at work.
Guiding Principles = I feel that the Guiding Principles are reflected in my day-to-day work.

DIVERSITY

WOMEN IN TOTAL WORKFORCE

In recent years, we have succeeded in maintaining the proportion of women in the total workforce at over a third and expect a slight upward trend in the future.

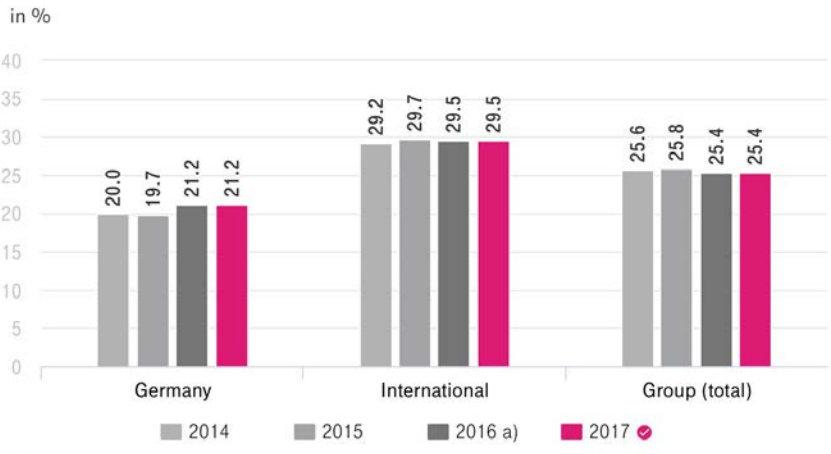
WOMEN IN MIDDLE AND UPPER MANAGEMENT

In 2017, as well, we continued pursuing the goal of achieving 30 % women in management positions. We continue to support this goal through the "Fair Share" initiative.In Germany, the percentage of women in mid- and upper-level managementstays at 21.2 %. Group-wide, the value has not changed either with a steady 25.4 %.

Deutsche Telekom is one of the few DAX Groups where women have been part of the Board of Management for several years now. In addition, more and more women are working in international management teams below the Board of Management level.

Reporting against standards

By reporting the percentage of women in middle and upper management, we fully cover the GRI 405-1 (Diversity of governance bodies and employees) GRI indicator and the S10-02 (Percentage of women in managerial positions) EFFAS indicator and partially cover the S10-01 (Percentage of women in total workforce) EFFAS indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code. It is also used for reporting on the Global Compact principle 6 (Elimination of discrimination).



Data checked by PwC.

a) In 2016, the classification was made according to job clusters and not to management groups as in the years before. Therefore the comparability of the data is limited.

PERCENTAGE OF SUPERVISORY BOARD POSTS AT DT NATIONAL COMPANIES

In the supervisory boards, the percentage of women among employee and employer representatives totals 26.3 percent (in Germany: 37.3 percent).

Women in Supervisory Board, international, on the part of employer (in %)

a) Proportion of internal active female employees in top and middle management was not reported in 2016.

EMPLOYEES WITH DISABILITIES

Deutsche Telekom has already exceeded the prescribed minimum rate of 5 percent of disabled employees for a good many years, so that it heads the list of DAX 30 companies on this count. In 2017 Deutsche Telekom again raised this figure by 0.1 percentage points.

Reporting against standards

By reporting this data, we partially cover the GRI 405-1 (Diversity of governance bodies and employees) GRI indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code. It is also used for reporting on the Global Compact principle 6 (Elimination of discrimination).

in %	2011	2012	2013	2014	2015	2016 a)	2017 b)
Germany	6.7	7.1	7.6	7.5	7.6	7.8	7.9
Europe			2.5	2.8	2.1	2.4	1.9
Systems Solutions	3.8	4.1	4.2	4.6	4.8	5.2	4.6
Group Headquarters and Group Services	8.1	7.6	5.6	8.7	9.3	9.7	4.7
Group (total) in Germany	**6.3**	**6.4**	**6.4**	**7.0**	**7.2**	**7.5**	**7.5**

a) excl. Deutsche Telekom Capital Partners Management GmbH, Detecon International GmbH, Cronon AG, Strato AG, Deutsche Telekom Clinical Solutions GmbH, Orbit GmbH, operational services GmbH & Co. KG

COMPLIANCE AND HUMAN RIGHTS

HUMAN RIGHTS & COMPLIANCE

Deutsche Telekom has made an express commitment to the UN Guiding Principles on Business and Human Rights published by the United Nations Human Rights Council in 2011 and has anchored these principles in its Social Charter.

Social Performance Report

To review possible impacts on human rights, we have operated a central Contact Point for Human Rights since 2013, and we prepare a Social Performance Report each year. In the report, all 103 fully consolidated companies of Deutsche Telekom state whether they comply with the principles of the Social Charter. The report again shows no violations of our Code of Human Rights & Social Principles (formerly Social Charter) for January to December 2017.

Whistleblower Portal

Whistleblower portal 'Tell me!': Seven tip-offs relating to human rights issues in 2017

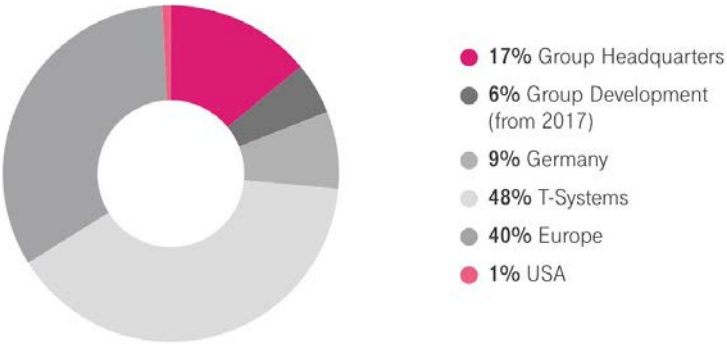
Assessments & Review

- A Human Rights Impact Assessment in 2017 (designed to assess the actual and potential consequences of corporate activities on human rights and the ability of the organization to prevent, mitigate, or compensate these consequences): T-Systems do Brasil
- Two 'Employee Relations Policy' reviews in 2017: T-Systems Netherlands and IT Services Hungary)

The Human Rights & Employee Relations Policy Cockpit is also used to measure impacts on human rights. To this end, the national companies collect data related to five human rights indicators and evaluate them according to a traffic light system. You can find further information here.

Reporting against standards

Statements by the participants in the Social Performance Report are relevant for GRI Indicator G4-HR9 (Operations that have been subject to human rights reviews). Some of the information is relevant for the EFFAS indicator S07-02 (Percentage of total facilities certificated according to SA 8000 standard). It is furthermore relevant for criterion 17 (Human rights) of the German Sustainability Code. It is also used in our reporting on Global Compact Principles 1 and 2 (Protection of international human rights).



assured by PwC.

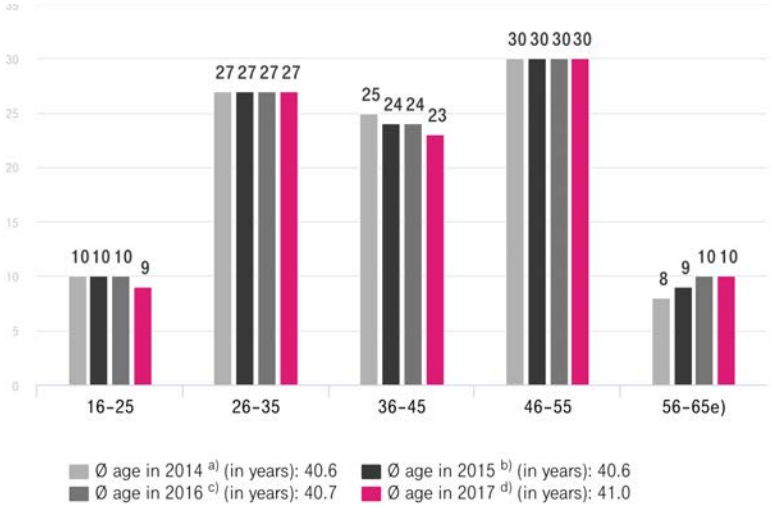
DEMOGRAPHY AND COMPANY PENSION SCHEME

AGE STRUCTURE AT THE DEUTSCHE TELEKOM GROUP

The average age in the Group is still 41 years. The average age in Germany is rising but is balanced out by the average age at international level (36.7 years).

Reporting against standards

By reporting on this data, we partially cover the GRI 405-1 (Diversity of governance bodies and employees) GRI indicator and fully cover the S03 -01 (Age structure/distribution) EFFAS indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code. It is also used for reporting on the Global Compact principle 6 (Elimination of discrimination).



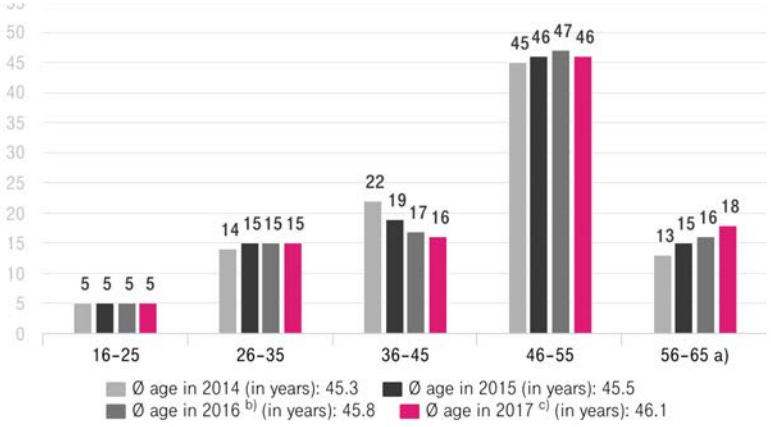
a) does not include data for: Deutsche Telekom North America, T-Systems North America, T-Systems Belgium, T-Systems Japan, T-Systems Canada, T-Systems China, C&B International, Deutsche Telekom International Finance B.V. and ICSS- & GTS-Companies.
b) does not include data for: emetriq GmbH, DT Capital Partners Management GmbH, Satellic NV , DT North America, DT International Finance B.V., C&B International Limited, OTE Plc, GTS Central European Holdings B.V., GTS Telecom S.R.L., C&B Services India Private Limited and ICSS-Companies.
c) does not include data for: Deutsche Telekom Capital Partners Management GmbH, Detecon International GmbH, Cronon AG, Strato AG, Deutsche Telekom Clinical Solutions GmbH, Orbit GmbH, operational services GmbH & Co. KG, T-Systems North America, T-Systems Canada, Deutsche Telekom North America, DT International Finance B.V., OTE Plc, Deutsche Telekom (UK) Limited, Detecon- and ICSS-Companies.
d) excl. Deutsche Telekom Capital Partners Management GmbH, Detecon International GmbH, Deutsche Telekom Clinical Solutions GmbH, Orbit GmbH, HÄVG GmbH, operational services GmbH & Co. KG, DT International Finance B.V., OTE Plc, Deutsche Telekom (UK) Limited, Detecon- and ICSS-Companies
e) incl. > 65 years

AGE STRUCTURE DT GROUP IN GERMANY

As a result of demographic change and low fluctuation, the proportion of employees over 55 years of age increased from 11 to 18 percent. One advantage of this is that many experienced employees with a wealth of know-how work for Deutsche Telekom.

Reporting against standards

By reporting on this data, we partially cover the GRI 405-1 (Diversity of governance bodies and employees) GRI indicator and fully cover the S03 -01 (Age structure/distribution) EFFAS indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code. It is also used for reporting on the Global Compact principle 6 (Elimination of discrimination).



a) incl. > 65 years
b) excl. Deutsche Telekom Capital Partners Management GmbH, Detecon International GmbH, Cronon AG, Strato AG, Deutsche Telekom Clinical Solutions GmbH, Orbit GmbH, operational services GmbH & Co. KG
c) excl. Deutsche Telekom Capital Partners Management GmbH, Detecon International GmbH,

COMPANY PENSION SCHEMES

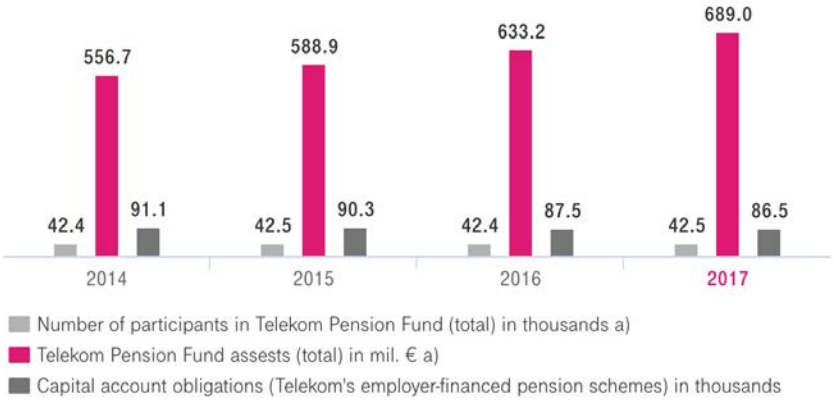
The increase in fund assets can be attributed to the payments of the increasing number of plan participants (as was the case in previous years). Because the majority of participants in the 2001 pension plan are still active, i.e., still paying into their retirement plans, this increase will remain steady over the next few years.

Investments in the capital market made by Deutsche Telekom for company pension schemes and similar obligations in Germany are based on our sustainability principles. These principles were integrated into our socially responsible investment strategy for Deutsche Telekom pension providers, which we introduced in 2013, in the form of exclusion criteria. They prohibit investments in companies that produce NBC weapons, anti-personnel mines or cluster bombs or that trade in these or have repeatedly violated the UN Global Compact principles. Deutsche Telekom pension funds are also prohibited from purchasing government securities from governments that are subject to sanctions in accordance with public international law. Our pension providers agreed to our socially responsible investment strategy in 2013. This strategy was reviewed in 2017 and now incorporates Best-in-Class strategies and engagement approaches.

We are convinced that putting this strategy into practice will help improve our financial risk indicators. This strategy will also promote perception of Telekom as a socially responsible company. It will help us avoid high-risk, controversial investments and, instead, invest in long-term, stable values that are in line with our principles of sustainability.

Reporting against standards

By reporting this data we fully cover the GRI 201-3 (Defined benefit plan obligations and other retirement plans) GRI indicator.



a) The volume comprises the assets of the Telekom-Pensionsfonds in the 2001 pension plan.

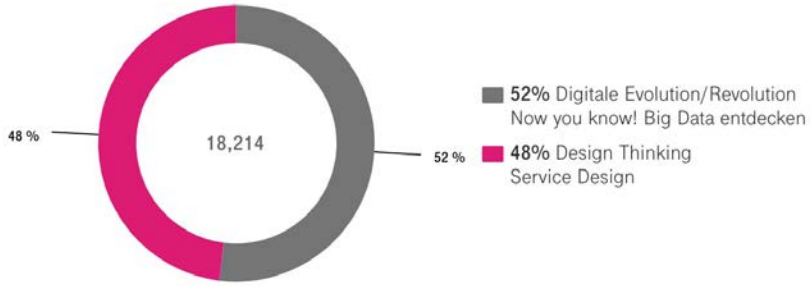
TRAINING AND DEVELOPMENT

SKILLS DEVELOPMENT AT TELEKOM TRAINING IN GERMANY

Deutsche Telekom offers its employees a range of advanced training measures, which enable them to develop and brush up their skills.

Reporting against standards

By reporting this data we fully cover the GRI 404-1 (Average hours of training per year per employee) and GRI 404-2 (Programs for upgrading employee skills and transition assistance programs) GRI indicators as well as the S02-02 (Average expenses on training per FTE p.a.) EFFAS indicator. This data also covers criterion 16 (Steps taken to promote the general employability of all employees) of the German Sustainability Code.



Ø Qualifizierungstage je Mitarbeiter: **4.0**; digitale: **1.6**
Anzahl Qualifizierungstage: **726,331.0**; digitale: **267,583.0**

INTERNATIONAL DEVELOPMENT AND MANAGEMENT PROGRAMS

The object of our international development and leadership programs is for high potentials and high achievers to gain a foothold in the Group, to keep them loyal to the company and to position them in suitable jobs. These programs focus on development of the upcoming leader generation and on support in coping with the challenges they face now and in the future. At the same time, the programs aim to enhance their sense of belonging, increase knowledge exchange and promote personal responsibility.

The number of participants in Global Talent Pool, the replacement for the Talent Space program, significantly increased in 2017, as did the number of participants in the Leadership Development Program (English-speaking). For the Management Development Program (German-speaking), the number further decreased.

		2014	2015	2016	2017
Participants Trainee-Programm Start up! [a]	total	30	31	18	32
Participants Trainee-Programm Start up! [a]	of which women	36%	45%	28%	50%
Participants Talent Space [b]	total	161	300	253	858
Participants Talent Space [b]	of which women	29%	32%	35%	25%
Participants FEP [c]/ LDP [d]	total	487	473	359	210
Participants FEP [c]/ LDP [d]	of which women	39%	40%	42%	39%

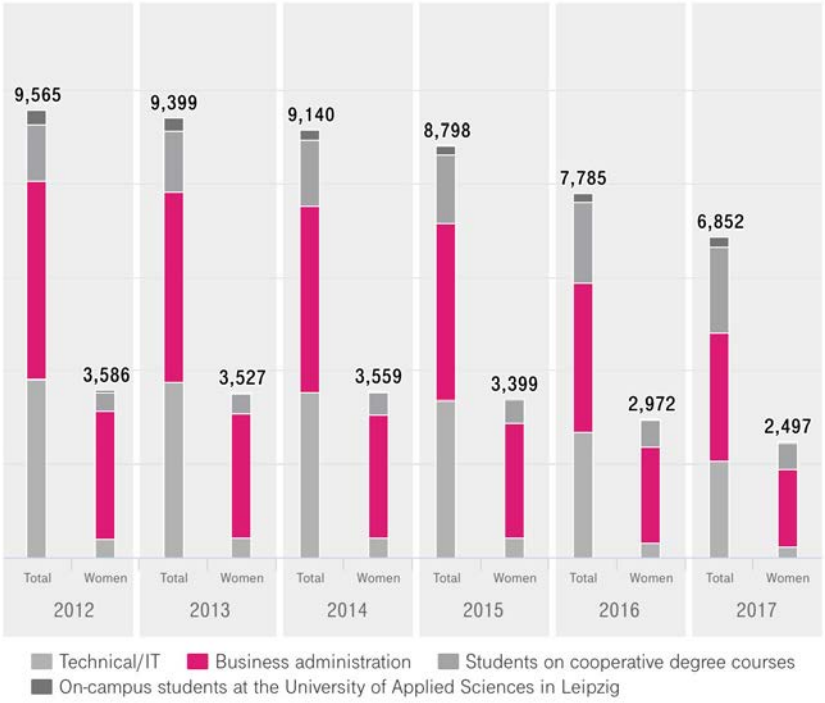
[a] The program lasts 15-18 months. The numbers listed are annual new hires.
[b] Group-wide program for top talents. The program lasts 12 months (starts every summer). Replaces the former "Talent Space" program. New audience scope hinders the comparability with previous years data.
[c] National German-language Management Development Program
[d] Leadership Development Program

APPRENTICES AND TRAINING PROGRAMS DEUTSCHE TELEKOM GROUP IN GERMANY

In 2017, we recruited 7,000 junior employees for training or a cooperative degree program. More than 35 % of them were women. The decrease on the previous year's figures is in line with the general employment trend at Deutsche Telekom.

Reporting against standards

By reporting this data we partially cover the GRI 404-1 (Average hours of training per year per employee) GRI performance indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code.



Examples for commercial training programs: office communications administrators, retail sales or dialog marketing assistants, industrial business administrators
Examples for cooperative study programs: Bachelor in Business Administration, Communications and Information Technology, Business Information Systems.

HEALTH AND SAFETY

HEALTH RATE

The health rate at Deutsche Telekom in Germany remained constant at a high level over the course of the year at approximately 93 percent.

The Group-wide health index – calculated as part of the2017 employee survey in 30 countries – increased positively by 0.1 to 3.6 (on a scale from 1 to 5). From2018, new steps will be taken designed primarily to improve the health rate. These include, for example, a workshop in which managers learn about a range of short-, medium-, and long-term strategies to influence the health rate. They will also be given the skills to become more confident at handling healthy and sick employees. The initiative will be piloted in Germany with the goal of rolling it out across the Group by 2020.

Reporting against standards

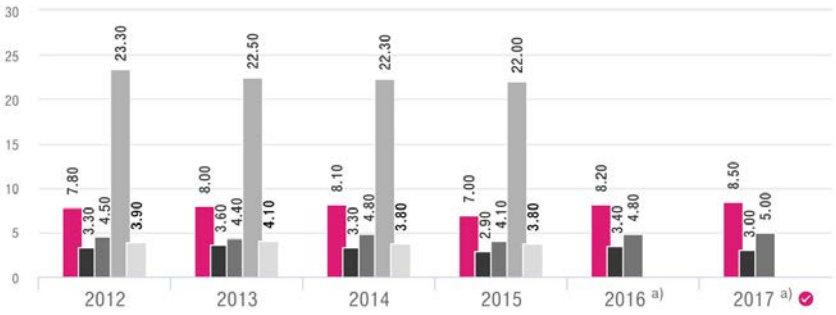
In combination with data on work-related accidents, the health rate data partially covers the GRI 403-2 (Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities) GRI performance indicator. This data is also relevant for criterion 15 (Diversity and health) of the German Sustainability Code.

	2011	2012	2013	2014	2015	2016	2017
Germany	93.5	93.6	93.6	93.4	93.3	93.1	92.9
Europe	97.7	97.5	96.3	96.8	96.7	97.0	97.3
Systems Solutions	96.2	96.3	96.3	96.3	96.5	96.5	96.6
Group Headquarters and Group Services	94.4	94.5	93.5	93.3	93.3	92.8	93.6
Group (total)	**94.1**	**94.2**	**93.9**	**94.4**	**94.0**	**93.8**	**93.7** ✓

✓ Data verified by PwC.

OCCUPATIONAL ACCIDENTS

The number of all accidents at work and on the way to or from work increased slightly in comparison to 2016. The accident rate in Germany was 8.5 accidents (resulting in over three days of absence) per thousand employees, well below the industry average.



a) Accidents from 2016 and 2017have not yet been included in the statistics published to date.

Data verified by PwC (Germany 8,50).

HEADCOUNT AND PART-TIME WORK

WORKFORCE DEVELOPMENT WORLDWIDE

The Group's headcount decreased by 0.5 percent compared with the year 2016. Employee figures were down in almost all segments. The total number of employees in the U.S. segment rose by 2.4 percent compared to the previous year. New staff were recruited for the retail segment as well as for customer service and HR administration. In our Europe and Systems Solutions business, the employee base decreased as a result of efficiency improvements and personnel restructuring measures. Employee numbers in the Group Headquarters & Group Services segment were down 4.7 percent year on year. This increase of employees in the customer service and the network area was partly offset by the decrease of employees in the customer acquisition area. In the operating segment Europe, the headcount increased by 1.3 percent compared to the end of 2016. Amongst others, our national company in Poland contributed to this increase as they opened new branches and hired more employees. In the segment Group Headquarters & Group Services the number of employees decreased by 4.7 percent against the previous year. The number of employees in the operating segment Group Development was reduced by 23.5 percent. The main reason for this is the deconsolidation of Strato as of 31 March 2017. The number of employees in the segment Group Headquarters & Group Services decreased by 4.7 percent compared to the end of 2016. This was mainly due to the continuous staff restructuring at Vivento and the groupwide pooling of Telekom Security in our operating segment Systems Solutions.

Reporting against standards

In combination with additional headcount data, the data on the trend in employee numbers worldwide fully covers the GRI 401-1 (New employee hires and employee turnover) GRI indicator. It also partially covers the S01-01 (Percentage of FTE leaving p.a.) EFFAS indicator.

	2011 [a]	2012	2013	2014 [c]	2015 [b,c]	2016 [b,c]	2017
Germany	69 574	67 497	66 725	68 754	67 927	65 452	**63 928**
USA	32 668	30 288	37 071	39 683	44 229	44 820	**45 888**
Europe	58 794	57 937	53 265	53 499	48 920	46 808	**47 421**
Systems Solutions	52 170	52 106	49 540	46 244	37 850	37 472	**37 924**
Group Headquarters and Group Services	21 726	21 858	21 995	19 631	23 548	21 216	**20 222**
Group (total)	235 132	229 686	228 596	227 811	225 243	218 341	**217 349**

[a] Figures deviate from previous reporting due to restatements. These restatements result from organizational changes within the Group.
[b] Since January 1st 2017 we report the Board division technology and innovation via the segment Group Development and the segments Group Headquarters & Group Services. Year on year data has been adjusted accordingly.
[c] The value was corrected compared to the information published in the previous year's report.

DEUTSCHE TELEKOM WORKFORCE 1999-2017

Our strategy to become the leading telecommunications provider in Europe is reflected in the trend in our international employee headcount. The number of employees working at sites outside Germany has risen notably since the turn of the millennium – albeit with fluctuations in some places. Whereas 88.2 percent of company employees were working in Germany in 1999, the rate has leveled at around 50 percent since 2015. The figure for 2017 was 47 percent.

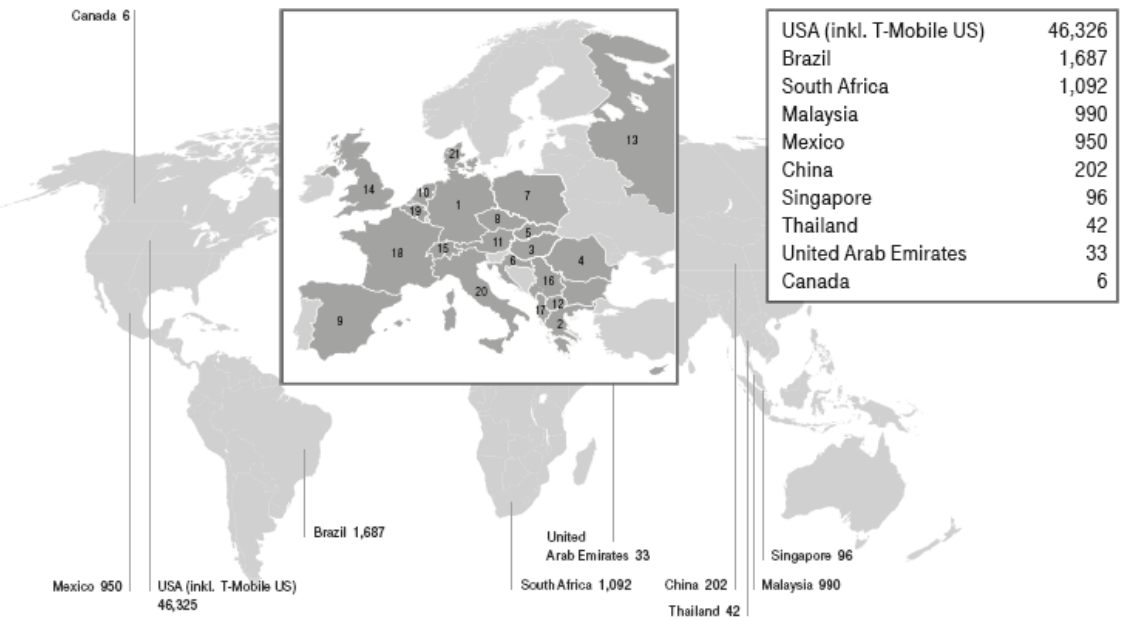
Reporting against standards

This data is relevant for criterion 15 (Diversity and health) of the German Sustainability Code.

a) 2009 figures include 32,900 Full-time Equivalent at OTE.

NUMBER OF EMPLOYEES BY COUNTRY

1	Germany	101,901
2	Greece	12,689
3	Hungary	12,354
4	Romania	6,987
5	Slovakia	8,049
6	Croatia	4,602
7	Poland	4,744
8	Czech Republic	3,498
9	Spain	2,457
10	Netherlands	1,644
11	Austria	2,001
12	Macedonia	1,177
13	Russia	1,451
14	United Kingdom	534
15	Switzerland	555
16	Montenegro	522
17	Albania	367
18	France	181
19	Belgium	129
20	Italy	27
21	Denmark	57



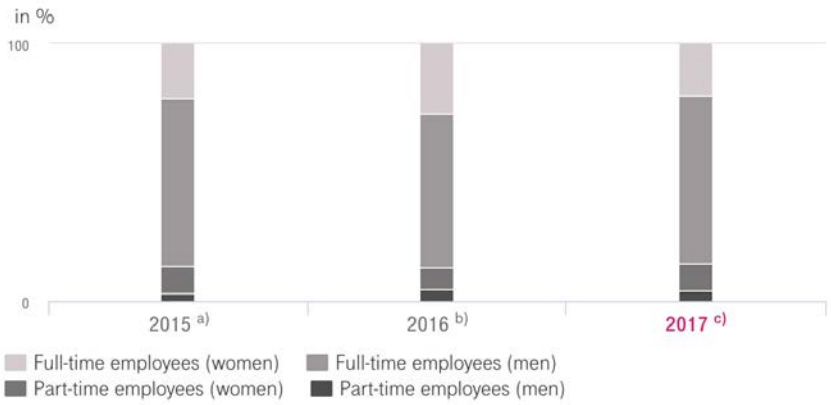
USA (inkl. T-Mobile US)	46,326
Brazil	1,687
South Africa	1,092
Malaysia	990
Mexico	950
China	202
Singapore	96
Thailand	42
United Arab Emirates	33
Canada	6

PART-TIME EMPLOYEES DEUTSCHE TELEKOM GROUP

We believe it is important to offer our staff flexible working conditions that fit their needs at every stage of their lives. This includes the opportunity to work part-time, but also the guaranteed option of returning to work when the employee no longer wants to work part-time. We also offer this to young parents so that they can balance starting their career through training or a part-time cooperative study course with the demands of family life as a single parent. In 2017, 1,825 young people took the opportunity to do this. Part-time training is available in all of our training programs, and means apprentices spend 25 hours per week either in the company, in school, or in the training center. The highlight: like all apprentices, part-time apprentices can cut their training to two and a half years and therefore apply for a job earlier than would have otherwise been possible. A success model all round, since Deutsche Telekom also benefits from the young people's commitment.

Reporting against standards

By reporting this data, we partially cover the GRI 102-8 (Information on employees and other workers) GRI indicator.



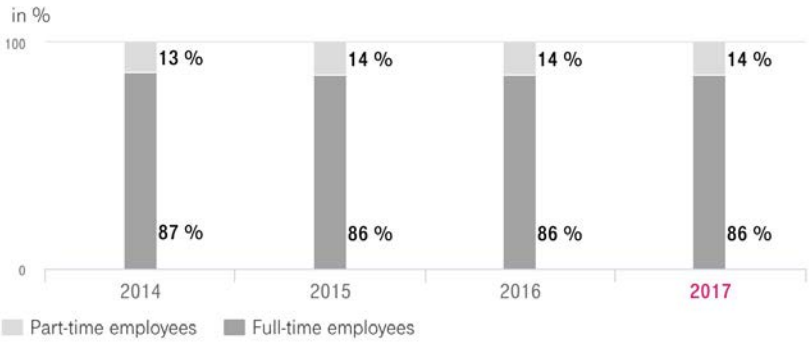
a): No data included for Magyar Telekom, OTE International Investments Limited, C&B and Scout24 International2014.
b): No data included for Deutsche Telekom North America, Deutsche Telekom International Finance B.V., C&B International, DeTeFleet, ICSS- and GTS-Companies.
c): No data included for emetriq GmbH, DT Capital Partners Management GmbH, Deutsche Telekom International Finance B.V., OTE Plc., GTS Central European Holdings B.V., GTS Telecom S.R.L.,Satellic NV, C&B International Limited, C&B Services India Private Limited and ICSS-Companies

PART-TIME EMPLOYEES DEUTSCHE TELEKOM GROUP IN GERMANY

The percentage of part-time employees came to around 14 percent in 2017, a slight increase year over year.

Reporting against standards

By reporting this data, we partially cover the GRI 102-8 (Information on employees and other workers) GRI indicator. This data is also relevant for criteria 14 (Employee rights) and 15 (Diversity and health) of the German Sustainability Code. It is also used for reporting on the Global Compact principles 3 (Freedom of association and the right to collective bargaining) and 6 (Elimination of discrimination).



FLUCTUATION AND WORKFORCE MANAGEMENT

FLUCTUATION RATE

The fluctuation rate in Germany increased for the first time, after experiencing continuous reduction until 2015. In 2017 it was 1.7%. At the international level it has increased by more than one percentage point in comparison to 2016. It has also increased slightly at Group level due to the increase in Germany, and was 4.68% in 2017.

Reporting against standards

In combination with additional data on the number of employees, the data on the fluctuation rate fully covers the GRI 401-1 (New employee hires and employee turnover) GRI indicator.

in %	2014	2015	2016	2017
Germany	1.42	1.28	1.37	1.70
International [a)]	8.57	9.25	8.14	9.22
Group (total) [a)]	4.21	4.39	4.01	4.68

[a)] excluding USA

PROPORTION OF CIVIL SERVANTS IN GROUP WORKFORCE

The proportion of civil servants employed in the company fell once again in 2017. The reason for this is that Deutsche Telekom has not recruited any new civil servant staff since the company was privatized. In addition to civil servants leaving the company when they reach retirement age, others also took advantage of early retirement or moved to other agencies. This led to a continuous drop in the number of civil servants in our workforce.

Reporting against standards

In combination with additional headcount data, the data on the percentage of civil servants in the workforce fully covers the GRI 401-1 (New employee hires and employee turnover) GRI indicator.

	2011	2012	2013	2014	2015	2016	2017
Active civil servants	23 516	21 958	20 523	19 881	18 483	15 999	15 482
Civil servants on temporary leave from civil servant status [a)]	1 537	1 430	1 412	1 340	1 220	889	731
Civil servants at affiliated companies	15 774	14 836	14 179	13 260	12 292	10 827	10 486
Civil servants (total)	**40 828**	**38 224**	**36 114**	**34 482**	**31 995**	**27 716**	**26 699**
Number of non-civil servants in Germany	80 736	80 616	80 529	80 267	78 360	76 946	75 202
Total number of employees in Germany	**121 564**	**118 840**	**116 643**	**114 749**	**110 354**	**104 662**	**101 901**
Percentage of civil servants in Germany (in %)	33.6	32.2	30.96	30.05	28.99	26.48	26.20

[a)] Civil servants whose status as such is currently suspended. They have temporarily switched to an employee relationship not covered by collective agreements.

VIVENTO WORKFORCE

Personnel service provider Telekom Placement Services continued to support the Group in its workforce restructuring efforts in the year 2017. Since its creation, Telekom Placement Services has opened up new professional prospects for more than 49,000 employees – increasingly in the public sector such as, for instance, at BAMF, the Federal Office for Migration and Refugees. Over 500 civil servants were seconded to BAMF in the reporting year to provide support for refugee relief work, including the processing of asylum claims. In fact, Deutsche Telekom employees are now working at more than 50 percent of the BAMF offices throughout Germany.In addition, in 2017 we were once again able to offer internal employment options to employees in units with surplus staff. In the reporting year alone, more than 1,070 employees had been transferred to new positions inside the Group by December 31, 2017.

Reporting against standards

In combination with additional headcount data, the data on the trend in employee numbers at Vivento fully covers the GRI 401-1 (New employee hires and employee turnover) GRI indicator.

Number of employees who have been transfered to the public sector via vivento: **417**
Staff transfers to Vivento since its foundation: **54,029**
Staff who have left Vivento since its foundation: **49,355**
a) All figures calculated on the basis of precise details. Since figures are rounded, totals may differ.

TOOLS FOR SOCIALLY RESPONSIBLE STAFF RESTRUCTURING DEUTSCHE TELEKOM GROUP IN GERMANY

We continued our efforts to engage in socially acceptable staff restructuring in 2017. We use internationally proven tools giving employees the option to voluntarily leave the company as part of this process.

Reporting against standards

This data is relevant for criteria6(Rules and Processes) and14 (Employment Rights) of the German Sustainability Code.

You can find further information here and in the HR Factbook starting mid-May.

	2012 [a]	2013	2014	2015	2016	2017
Early retirement (civil servants)	2 266	1 618	927	1 235	3 868	37
(in germany)	2 266	1 618	927	1 219	3 849	27
Early retirement (non-civil servants)	253	30	41	29	47	61
(in germany)	3	27	27	29	47	61
Severance payments	2 847	3 618	3 738	4 436	3 903	2 950
(in germany)	955	1 316	826	1 448	726	1 081
Partial retirement (start of passive phase)	1 418	711	332	1 345	1 393	1 687
(in germany)	1 417	711	332	1 345	1 393	1 687
Other socially responsible tools	1 921	2 490	618	136	119	91
(in germany)	120	241	471	11	<6	15
Transfers to public authorities (final) [b]				711	409	417
(in germany)				711	409	417

[a] Worldwide data collection since 2012
[b] Permanent transfers; civil servants are not entitled to return to the Deutsche Telekom Group – established as a cluster in 2015.

IDEAS MANAGEMENT

GENIAL@TELEKOM. IDEAS MANAGEMENT

Employees have the chance to submit their own ideas and, in doing so, to actively shape their workplaces. Costs reductions of around €100 million in 2017 played a key role in keeping Deutsche Telekom competitive. In addition, workforce commitment enables the Group to position itself as a more innovative and more competitive enterprise. An incentive for idea generators: Deutsche Telekom awards attractive bonuses for successful suggestions.

Reporting against standards

Employee involvement is encouraged via the genial@telekom ideas management platform. This data is relevant for criterion 14 (Employee rights) of the German Sustainability Code.

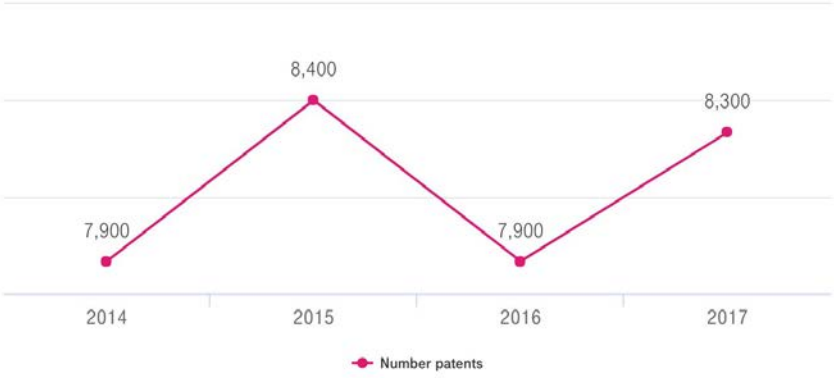
	2012	2013	2014	2015	2016	2017
Ideas submitted	13 043	12 146	13 231	13 728	10 125	6 902
Savings in millions of €	104	83	107	147	169	99

PORTFOLIO OF INTELLECTUAL PROPERTY RIGHTS

275 patents were registered during the reporting period. By the end of 2017, we owned around 8,300 intellectual property rights (IPRs), more than in the previous year. We take a targeted approach to managing these IPRs in consideration of cost-benefit aspects. We regularly take stock of our IPRs and eliminate those that are no longer relevant.

Patents are gaining more and more significance in the telecommunications industry. Market players and their areas of activity are changing, with a knock-on effect on our IPR (intellectual property rights) agenda. On the one hand, our Group's scope for action must be maintained. On the other hand and alongside our own research and development activities, we want to pave the way to open innovation through collaboration projects and partnerships. National and international IPRs are vital for these types of activity. We are strongly dedicated to generating our own property rights. Industrial property rights include inventions, patent applications, patents, utility models and design patents.

Thanks to our intense efforts to develop and structure our IPR portfolio, the rights we hold are highly valuable and firmly in line with our Group's strategic objectives. We have put in place a professional patent law management process to keep our IPR assets safe. Additionally, we are represented on various standardization bodies in our industry. We manage our IPRs on the basis of cost/benefit aspects, filing only selected applications and de-registering patents systematically.



Reporting against standards

This data partially covers the V04-05 (Number of patents registered within last 12 months) and V04-06 (Percentage of patents registered within last 12 months in relation to total number of patents) EFFAS indicators.

DIGITAL COLLABORATION

DIGITALLY NETWORKED WORLDWIDE

	2014	2015	2016	2017
WEBEX (Konferenzminuten (global) in Mio.)	416.61	533.86	672.52	763.73
Jabber (Jabber Accounts)		15 110	27 254	37 062
You-and-Me (Angelegte Nutzerprofile)	90 734	104 297	120 325	121 876

IMPRINT

Adress:
Deutsche Telekom AG
Friedrich-Ebert-Allee 140
53113 Bonn, Germany
District Court of Bonn HRB 6794,
Registered Office Bonn
VAT ID No. DE 123475223

E-Mail: impressum [at] telekom.de
Telefon: 0228/ 181-0

Contact:
Please use our contact forms for questions about the company or products and services provided by our business areas.

Regulatory authority:
Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway
Tulpenfeld 4, 53113 Bonn, Germany

Authorized representatives:
Timotheus Höttges
Adel Al-Saleh
Thomas Dannenfeldt
Srinivasan Gopalan
Dr. Christian P. Illek
Dr. Thomas Kremer
Claudia Nemat
Dr. Dirk Wössner

Regulatory authority:
Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway
Tulpenfeld 4, 53113 Bonn, Germany

Responsible:
Deutsche Telekom AG
Birgit Klesper
Senior Vice President Group Transformational Change & Corporate Responsibility
Friedrich-Ebert-Allee 140
53113 Bonn

Further information on Deutsche Telekom's corporate responsibility activities can be found at:
http://www.telekom.com/corporate-responsibility
and
http://www.annualreport.telekom.com

Concept/research/design/programming:
Deutsche Telekom AG
Stakeholder Reporting GmbH, Hamburg
yoocon GmbH, Berlin
1000°DIGITAL GmbH, Leipzig

Photos:
Frank Bauer
Pictureworld, Deutsche Telekom

The 2017 CR Report is available in German and English. The English version of the CR Report is a translation of the German version of the CR Report. The German version of this CR Report is legally binding. Translated by DTAG Corporate Language Management.

DISCLAIMER

Deutsche Telekom AG in no way guarantees that the information made available on this website is complete, accurate or up-to-date in all cases. This also applies to any links to other websites. Deutsche Telekom AG shall not be held responsible for the contents of a page accessed via such a link. Deutsche Telekom AG reserves the right to amend, supplement or delete the information supplied without prior notice.

The information on this website does not constitute an offer to sell or the solicitation of an offer to buy any securities and should not be relied upon in connection with any investment decision. In no event shall Deutsche Telekom be liable for any damage whatsoever resulting from loss of use options or data loss in connection with the use of documents or information and/or from the performance of services available on this website.

With the exception of historical information, the matters discussed in the materials and documents on this website are "forward-looking statements". These forward-looking statements rely on a number of risks, uncertainties or other factors, many of which are outside Deutsche Telekom AG's control, which could cause actual results to differ materially from such statements. These risks, uncertainties and other factors are described in detail in Deutsche Telekom's financial reports which are available on Deutsche Telekom's website. Visitors of this website are cautioned not to put undue reliance on these forward-looking statements. Deutsche Telekom disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

CORPORATE RESPONSIBILITY REPORT 2017

GRI-INDEX

GLOBAL COMPACT COMMUNICATION ON PROGRESS

LIFE IS FOR SHARING.

GENERAL DISCLOSURES

Indicator Reference Checked

GRI 102: GENERAL DISCLOSURES

Organization profile

102-1 Name of the organization

- Strategy & management > Added value and materiality

102-2 Primary brands, products and services

- Strategy & management > Added value and materiality

There were no prohibitions on products and/or services in any countries in 2017.

102-3 Headquarters

- www.cr-report.telekom.com/site18/imprint

102-4 Countries where the organization operates

- www.telekom.com/en/company/worldwide

102-5 G4-7 Nature of ownership and legal form

- www.telekom.com/en/company/details/facts-and-figures-355192

102-6 Markets served

- www.telekom.com/en/company/worldwide
- www.annualreport.telekom.com/site0218/management-report/group-organization/business-activities-and-organization.html
- Strategy & management > Added value and materiality

102-7 Scale of the organization

- Strategy & management > Added value and materiality
- www.annualreport.telekom.com/site0218/management-report/deutsche-telekom-at-a-glance.html

102-8 Total workforce

- Facts & figures > Social indicators > Headcount and part-time work

In 2017 a total of 33 executives throughout Germany were working part-time. Deutsche Telekom also made a similar voluntary commitment regarding employees covered by collective agreements and civil servants. Currently, 13.6 percent of employees covered by collective agreements and 20.4 percent of Deutsche Telekom civil servants throughout Germany are working part-time.

102-9 Supply chain

- Suppliers > Supply chain management

Indicator Reference Checked

102-11 Precautionary Principle

Risk management, compliance management and the ESG KPIs provide approaches for preventive action at Deutsche Telekom.

- Strategy & management > Risk and opportunity management
- Strategy & management > Compliance
- Strategy & management > CR Controlling and impact measurement

102-12 External charters, principles or other initiatives

- About this report > Global Compact Communication on Progress
- About this report > The German Sustainability Code
- Strategy & management > Values and Guiding Principles
- Strategy & management > Values and Guiding Principles
- Strategy & management > Stakeholder management
- Suppliers > Sustainable procurement strategy

102-13 Memberships of associations and advocacy organizations

- Strategy & management > Stakeholder management

Due to reasons of confidentiality it is not possible to list our memberships and collaborations based on strategic aspects. Our policy on political advocacy applies to our involvement in committees and associations.

- Strategy & management > Representing political interests

Strategy and analysis

102-14 Statement of the Board of Management

- Strategy & management > Statement by the Chairman of the Board of Management

102-15 Impacts, risks and opportunities

- Strategy & management > Risk and opportunity management

Ethics and integrity

102-16 Values, principles, standards and norms of behavior

- Strategy & management > Values and Guiding Principles

102-17 Internal and external procedures on ethical and lawful conduct and procedures for reporting concerns regarding non-ethical or unlawful conduct

- Strategy & management > Compliance

Indicator Reference Checked

Governance

102-18 Governance structure

> Strategy & management > CR strategy

102-19 Delegating authority

> Strategy & management > CR strategy

102-20 Responsibility for sustainability topics

> Strategy & management > CR strategy

102-24 Selection processes for the highest governance body and its committees

All skills and abilities required and useful in effectively enacting the responsibilities of a position are taken into consideration during the selection process. The requirements of a position are identified using a skills list.

The selection process is conducted by the Supervisory Board, which acts in the interests of stakeholders and shareholders.

Stakeholder engagement

102-40 Stakeholder groups engaged

> Strategy & management > Added value and materiality
> Strategy & management > Stakeholder management
> www.cr-report.telekom.com/crwissen/formats-stakeholder-engagement

102-41 Employees covered by collective bargaining agreements

Collective bargaining plays an important role and has a long tradition at our company, a fact made clear by the percentage of employees covered by collective agreements. As of December 31, 2016, some 69 percent of employees in Germany were covered by collective agreements. Group-wide this number was 56 percent.

102-42 Identification and selection of stakeholders

> Strategy & management > Stakeholder management

102-43 Approach to Stakeholder Engagement

> Strategy & management > Stakeholder management
> Strategy & management > Stakeholder management
> www.cr-report.telekom.com/crwissen/formats-stakeholder-engagement

We work with various feedback formats which can only be classified with difficulty due to their variety. Because we have informal discussions with our stakeholders at dialog events, the feedback cannot be broken down according to the stakeholder groups.

102-44 Key topics and concerns raised by stakeholders

> Strategy & management > Stakeholder management

Identified material aspects and boundaries

Indicator Reference Checked

102-45 Entities included in the consolidated financial statements

↗ www.telekom.com/en/company/worldwide

102-46 Defining report content and topic boundaries

> Strategy & management > Added value and materiality
> Strategy & management > Added value and materiality

102-47 List of Material Topics

> Strategy & management > Added value and materiality
> Strategy & management > Added value and materiality

102-48 Restatements of Information

There was no cause to restate information within the reporting period.

102-49 Changes in Reporting

There were no changes in reporting in the reporting period.

Report profile

102-50 Reporting period

> About this report

102-51 Date of most recent report

> About this report

102-52 Reporting cycle

> About this report

102-53 Contact point for questions regarding the report

> About this report

102-54 Claims of reporting in accordance with the GRI Standards

> About this report > GRI index

102-55 GRI content index

> About this report > GRI index

102-56 External assurance

> About this report > GRI index

TOPIC-SPECIFIC STANDARDS

Indicator Reference Checked

GRI 203: INDIRECT ECONOMIC IMPACTS

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach. ✓

- Customers & products > Infrastructure expansion

203-1 Infrastructure investments and services supported ✓

- Customers & products > Infrastructure expansion

GRI 204: PROCUREMENT PRACTICES

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Suppliers > Sustainable procurement strategy ✓
- Suppliers > Supply chain management
- Suppliers > Resource scarcity and raw materials sourcing

204-1 Proportion of spending on local suppliers at significant locations of operation

As an ICT company, Deutsche Telekom works with suppliers worldwide. This is why there can be no Group-wide guidelines on the preference of local suppliers.

GRI 205: ANTI-CORRUPTION

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Strategy & management > Compliance

205-1 Total number and percentage of operations assessed for risks related to corruption and the significant risks identified

The following risks of corruption were identified as the most likely within the scope of our risk analysis:

Indicator Reference Checked

1. A benefit is granted to a business partner's employee or representative in connection with a specific forthcoming business decision in order to gain an unfair competitive advantage (e.g., inviting a decision-maker on the customer side to a prestigious sports event in order to sway them into renewing the existing framework agreement that is coming up for renewal.)
2. A benefit is granted to a member of the public sector in connection with an official action (e.g., giving high-end devices to a public official who is responsible for the tendering process).
3. A sales agent/consultant uses a part of their fee as a bribe in order to win a contract
4. An employee of a business partner is offered a benefit in order to bring about favorable treatment when procuring goods, although there is no consent for this on the part of the company and this situation would constitute a breach of duty towards the company. Distortion of competition is not necessary!
5. Following a merger/acquisition of a company, cases of corruption (e.g., in connection with consultants) from before the acquisition come to light and are attributed to Deutsche Telekom.

Each year, we carry out a Group-wide compliance risk assessment (CRA) to determine compliance risks and develop tailored compliance measures. In 2017, the CRA included 73 companies and thus covered around 97 percent (based on the number of employees).

205-2 Communication and training on anti-corruption policies and procedures

We use regular training measures to inform and raise awareness among our employees about compliance. These take place every 3 years. In addition to classroom courses, we also use various interactive e-learning formats. In addition, customized classroom courses on compliance and anti-corruption are given to members of the management boards and executives. Managers are addressed about their extraordinary responsibility and informed about trends and changes in the law.

E-learning training in Germany

In 2016 and 2017, more than 18,000 employees in high-risk positions (sales, procurement) in Germany completed the anti-corruption e-learning course; almost 14,000 employees received a certificate for completing a compliance e-learning course; 41,000 employees participated in an e-quiz on gifts, and more than 1,500 employees took the e-learning course on consultant services. Some 16,500 employees completed the e-learning training on anti-trust law.

Implementation of Group policy throughout the Group

Deutsche Telekom has introduced the Group Policy on Avoiding Corruption and Other Conflicts of Interest, which sets out the relevant responsibilities and duties and includes a list of possible conflicts of interest. We also introduced our Group Policy on Accepting and Grant-

Indicator Reference Checked

ing of Benefits, which clearly specifies which benefits may be granted to and accepted from business partners.

Both policies have been rolled out and communicated throughout the Group and approved by the managing boards at the various companies.

Providing information and training to business partners

Our business partners are required to accept the Deutsche Telekom General Terms and Conditions for Purchasing before entering into a business relationship with us. These include an anti-corruption clause. In addition, we ask our business partners questions regarding their compliance management systems as part of supplier self-assessment process. Deutsche Telekom has been offering online compliance training to external business partners and suppliers since September 2014. The training offer particularly focuses on small and medium-sized German business partners and suppliers. This offer encourages our partners even more to conduct their business ethically and in compliance with relevant laws and regulations. The training addresses specific compliance-relevant topics such as corruption prevention, anti-trust law and sustainability and introduces Deutsche Telekom's compliance management system.

205-3 Confirmed incidents of corruption and actions taken

Deutsche Telekom engages in extensive compliance management activities to prevent and fight corruption Any violations we uncover during our investigation are punished appropriately. In some cases employment relationships have even been terminated for good cause. The total number of sanctioned incidents of corruption is confidential.

GRI 301: MATERIALS

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach. ✓

- Customers & products > Sustainable products & services

301-3 Reclaimed products and their packaging materials

- Customers & products > Sustainable products & services
- Facts & figures > Environmental indicators > Used cell-phone collection and waste volume

GRI 302: ENERGY

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Climate & environment > Climate strategy > CO_2 emissions
- Climate & environment > Climate strategy > Energy efficiency
- Climate & environment > Climate strategy > Energy efficiency
- Climate & environment > Climate strategy > CO_2 emissions

Indicator Reference Checked

302-1 Energy consumption within the organization ✓

- Facts & figures > Environmental indicators > Energy

Energy consumption at Deutsche Telekom primarily pertains to the consumption of electricity, district heating, fossil fuels and fuel for our vehicle fleet. The amount of energy sold by Deutsche Telekom is not significant and generally not included in our energy and fuel consumption values.

302-3 Energy intensity ✓

- Facts & figures > Environmental indicators > ESG KPI "Energy Intensity"

GRI 305: EMISSIONS

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Climate & environment > Climate strategy > CO_2 emissions
- Facts & figures > Environmental indicators > CO_2 emissions
- Customers & products > Sustainable products & services

305-1 Direct GHG emissions (Scope 1) ✓

- Facts & figures > Environmental indicators > CO_2 emissions
- Facts & figures > Environmental indicators > CO_2 emissions

305-2 Indirect GHG emissions (Scope 2) ✓

- Facts & figures > Environmental indicators > CO_2 emissions
- Climate & environment > Climate strategy

305-3 Other indirect GHG emissions (Scope 3)

- Facts & figures > Environmental indicators > CO_2 emissions

305-5 Reduction of GHG emissions

- Customers & products > Sustainable products & services
- Facts & figures > Environmental indicators > Other environmental data
- Customers & products > Infrastructure expansion

GRI 401: EMPLOYMENT

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Employees > Agile and flexible: Promoting new manners of cooperation ✓
- Suppliers > Supply chain management

Indicator Reference Checked

401-1 New employee hires and employee turnover

- Facts & figures > Social indicators > Headcount and part-time work
- Facts & figures > Social indicators > Fluctuation and workforce management
- Facts & figures > Social indicators > Fluctuation and workforce management
- Facts & figures > Social indicators > Fluctuation and workforce management

The number of employees entering retirement, an important component of natural employee turnover, is not recorded within the scope of the annual workforce structure report. We therefore cannot provide a breakdown of natural turnover according to gender and age. The time and effort involved in more detailed data collection would exceed any benefit from the results.

GRI 402: LABOR/MANAGEMENT RELATIONS

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach. ✓

- Employees > Agile and flexible: Promoting new manners of cooperation

402-1 Minimum notice periods regarding operational changes

This indicator cannot be used for Deutsche Telekom as a global corporation because of the extensive effort involved in compiling all country-specific regulations, an effort that exceeds the benefit of such activities. The relevant works council committees are informed on significant operational changes and involved according to the legally applicable provisions such as the German Works Constitution Act (Betriebsverfassungsgesetz). We also regularly engage in dialog with employee representatives at a national and European level.

GRI 403: OCCUPATIONAL HEALTH AND SAFETY

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

- Employees > Occupational health and safety

Deutsche Telekom supports its employees and their family members with special programs in case of need, for example during a serious illness. These include the following:

- Individual counseling in case of professional and private issues or conflicts offered by psychosocial experts of the Employee and Executive Advisory Service by external service provider B.A.D.
- Assistance for low-income families: The Post/Postbank/Telekom welfare service provides support in case of emergencies, such as natural disasters.

Indicator Reference Checked

- Deutsche Telekom Social Fund: We provide fast financial aid to employees who are unable to find a way out of financial difficulties they are facing through no fault of their own. The Family Fund provides support to families in need.
- Dance therapy for women with cancer in collaboration with the Post Postbank Telekom e.V. recreation service.
- Offers in cooperation with the AWO service for families and parents: consulting on and arranging of childcare, care for relatives, home help for the elderly, household services, nursing and care seminars, and emergency childcare.

We enable flexible working models for an improved work-life balance. Deutsche Telekom offers various models for working schedules. These enable flexible working hours, part-time work, phased retirement, parental leave, family care leave, and leave of absence without pay.

403-1 Workers representation in formal joint management-worker health and safety committees

We have created different steering levels at Deutsche Telekom in Germany to implement our occupational health and safety management activities.

- The first level is the Central Health Working Group, comprised of employer representatives from the Group and Group companies as well as employee representatives, occupational health and safety experts and representatives of employees with disabilities.
- The second level comprises the Health Working Groups at Deutsche Telekom subsidiaries in Germany.
- The third level is comprised of local, on-site working groups responsible for implementing occupational health and safety management locally; there are at least 110 of these.

All of our employees in Germany are represented by these committees. The national companies are responsible for their own occupational health and safety management. However, all Deutsche Telekom employees will be gradually involved in a certified health, safety, and environmental management system that is based on the international standards OHSAS 18001 for occupational health and safety and ISO 14001 for environmental management and that safeguards Group-wide standards. One hundred percent of our employees in Germany and 99 percent of our employees outside of Germany have occupational health and safety certificates. At the same time, 93 percent of our employees in Germany and 83 percent of our employees outside of Germany are covered by environmental protection certificates. (Last revised: December 31, 2017).

403-2 Types of injury and rates of injury at the organization

- Facts & figures > Social indicators > Health and safety ✓
- Facts & figures > Social indicators > Health and safety ✓

Indicator Reference Checked

GRI 404: TRAINING AND EDUCATION

GRI 103: Management Approach

103-1 103-2 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

› Employees > Training and development

404-1 Average hours of training per year per employee by gender and by employee category

Vocational training (Group in Germany)

	Total hours in 2017	Female	Male
Apprentices	8,743,680*	3,497,472*	5,246,208*
Students on cooperative study programs	3,008,308*	932,575*	2,075,733*
Sum	11,751,988*	4,430,047*	7,321,941*

(* Calculations based on average values.)

Continuing education (Group - international without USA)
Our employees spent an average of around 25.2 hours attending continuing education events in 2017. All employees generally have equal access to continuing education opportunities (regardless of gender, cross-hierarchy). It is therefore not possible to differentiate at Deutsche Telekom.

Telekom Training continuing education program Apprentices and vocational training programs

› Facts & figures > Social indicators > Training and development
› Facts & figures > Social indicators > Training and development

404-2 Programs for upgrading employee skills and transition assistance programs

Programs for life-long learning
› Facts & figures > Social indicators > Training and development

Departure from the company and career perspectives
Depending on the situation, we use various tools to help affected employees leave their job at the Group in a socially acceptable manner. This includes options such as outplacement consulting and severance payments. In addition, Vivento, the service provider for staff restructuring in Germany, offers assistance to civil servants when transferring to a public-sector employer. In many cases, the job change can be accompanied by financial incentives. Civil servants can find suitable federal, state and local positions through the Vivento job portal www.interamt.de.

The Post/Telekom welfare service offers seminars on "Getting ready for retirement" in which Deutsche Telekom employees are invited to participate. Participants work on ways in which they will be able to fill their retirement years with meaningful activities and enjoy their retirement for years to come.

› Facts & figures > Social indicators > Training and development

Indicator Reference Checked

404-3 Percentage of employees receiving regular performance and career development reviews

We use various tools to assess the performance and career development of our employees. The Compass tool is used for employees covered by collective agreements and for civil servants in Germany, while the Performance & Potential Review (PPR) is for employees not covered by collective agreements in Germany and for employees at the national companies. Furthermore, in 2014 we launched Performance Dialog, a new tool for assessing the performance of top-level managers.

Performance management tools and employee category	Number and percentage of employees whose performance and career development were assessed
Compass (employees covered by collective agreements in Germany)	About 72,000 employees (82 percent of the target group)
Performance & Potential Review (employees not covered by collective agreements in Germany)	About 9,000 employees (97 percent of the target group)
Performance & Potential Review (employees at national companies)	21,000 employees (tool is being used at many national companies)
Performance Dialog (top-level managers throughout the Group)	2,400 employees (98 percent of the target group)

In each case, the performance management tools apply for entire employee groups and therefore cover male and female employees in equal measure.

GRI 405: EMPLOYEE DIVERSITY AND EQUAL OPPORTUNITIES

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary. Explain how the organization manages the topic. Explain how the organization evaluates the management approach.

› Employees > Diversity and equal opportunities

405-1 Diversity of governance bodies and employees: Percentage of individuals within the organization's governance bodies in each of the following diversity categories: gender, age group, other indicators of diversity where relevant (such as minority or other vulnerable groups)

› Facts & figures > Social indicators > Diversity
› Facts & figures > Social indicators > Diversity
› Facts & figures > Social indicators > Demography and company pension scheme

Deutsche Telekom is an international corporation that holds no more than a majority interest in some of its national companies. For that reason it is not possible to break down these values based on employee category.

Indicator Reference Checked

405-2 Ratio of basic salary and remuneration of women to men

We have been comparing the pay of male and female employees for several years now. We were unable to identify any significant, gender-based differences in pay for our employees in Germany. In the past, studies (e.g. Logib-D) confirmed that women and men who do the same job receive the same pay. It was not possible to record the pay of our male and female employees at all of our international locations due to data unavailability, relevance to competition and the time and effort involved.

GRI 406: NON-DISCRIMINATION

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

- Strategy & management > Human rights

406-1 Incidents of discrimination and corrective actions taken

- Strategy & management > Human rights

GRI 407: FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

- Strategy & management > Human rights

407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk, and corrective actions taken

- Suppliers > Supply chain management > 2017 audit results

To our knowledge there are no cases of this nature. Deutsche Telekom recognizes the fundamental right to freedom of association and the right to collective bargaining within the scope of national regulations and existing agreements. These principles form an integral part of the Code of Human Rights & Social Principles, are binding for the entire Group and must be confirmed in writing annually by the Group companies.

GRI 409: FORCED OR COMPULSORY LABOR

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

- Strategy & management > Human rights
- Suppliers > Sustainable procurement strategy ✓
- Suppliers > Supply chain management

Indicator Reference Checked

409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labor, and corrective actions taken

- Strategy & management > Human rights
- Suppliers > Supply chain management > 2017 audit results

Risks related to forced labor are combated by auditing selected strategic and particularly high-risk suppliers. No significant risk of forced or compulsory labor was identified at our direct business facilities.

GRI 412: HUMAN RIGHTS ASSESSMENT

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

- Strategy & management > Human rights
- Strategy & management > Human rights

412-1 Operations that have been subject to human rights reviews or impact assessments

- Strategy & management > Human rights

GRI 414: SUPPLIER SOCIAL ASSESSMENT

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

- Suppliers > Sustainable procurement strategy ✓
- Suppliers > Supply chain management
- Suppliers > Supply chain management > 2017 audit results

414-1 New suppliers that were screened using social criteria

In 2017, 83 percent of our suppliers were assessed for social and environmental criteria. This also includes human rights criteria. Such an examination is also carried out for all of our future suppliers.

- Facts & figures > Economic indicators > Suppliers
- Suppliers > Supply chain management

414-2 Negative social impacts in the supply chain and actions taken

- Suppliers > Supply chain management > 2017 audit results

Indicator	Reference	Checked
GRI 416: CUSTOMER HEALTH AND SAFETY		
GRI 103: Management Approach		
103-1 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.		
	Customers & products > Consumer protection and security > Mobile communications and health (EMF)	
	Customers & products > Sustainable products & services	✓
416-2 Incidents of non-compliance concerning the health and safety impacts of products and services		
	Strategy & management > Compliance	
GRI 418: CUSTOMER PRIVACY		
GRI 103: Management Approach		
103-1 103-2 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.		
	Strategy & management > Data privacy and data security	✓
	Customers & products > Consumer protection and security > Consumer and youth protection	
	Customers & products > Consumer protection and security > Cyber security	
418-1 Substantiated complaints regarding breaches of customer privacy and losses of customer data		
	Strategy & management > Compliance	
GRI 419: SOCIOECONOMIC COMPLIANCE		
GRI 103: Management Approach		
103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.		✓
	Strategy & management > Compliance	
419-1 Non-compliance with laws and regulations in the social and economic area		
	Strategy & management > Compliance	

Indicator	Reference	Checked

FURTHER GRI ASPECTS REPORTED

Indicator Reference Checked

GRI 201: ECONOMIC PERFORMANCE

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

↗ www.telekom.com/en/company/at-a-glance

201-1 Direct economic value generated and distributed

› Facts & figures > Economic indicators > Financial performance indicators

201-3 Defined benefit plan obligations

› Facts & figures > Social indicators > Demography and company pension scheme

GRI 306: EFFLUENTS AND WASTE

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

› Climate & environment > Circular economy
› Climate & environment > Circular economy
› Climate & environment > Other environmental topics
› Climate & environment > Circular economy

Further GRI aspects reported Waste by type and disposal method

› Facts & figures > Environmental indicators > Used cell-phone collection and waste volume

Deutsche Telekom has a Group-wide waste management policy in place (e.g., for recycling copper) to handle the major types of waste produced by its business activities. We also use our Used Mobile Device Collection ESG KPI to determine the relationship between the number of mobile devices such as smartphones and tablets brought to market and the number returned to us (returned mobile devices in thousands / number of mobile devices brought to market in millions). Functional devices are reused, hence having a longer life span. Cell phones that are no longer functional are properly recycled in an environmentally friendly manner. Data collection regarding disposal methods is complex, and the amount of time and work involved could not be reasonably justified based on the benefit this type of data collection would bring.

Indicator Reference Checked

We comply with all legal requirements in all countries when disposing of hazardous waste.

We are a service company with correspondingly low waste water volumes. We do not record our waste water, as the amount of time and work involved could not be reasonably justified based on the benefit this would bring.

GRI 308: SUPPLIER ENVIRONMENTAL ASSESSMENT

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

› Suppliers > Sustainable procurement strategy ✓
› Suppliers > Supply chain management
› Suppliers > Supply chain management > 2017 audit results

308-1 Percentage of new suppliers that were screened using environmental criteria ✓

In 2017, 83 percent of our suppliers were assessed for social and environmental criteria. This also includes human rights criteria. Such an examination is also carried out for all of our future suppliers.
› Facts & figures > Economic indicators > Suppliers

308-2 Significant actual and potential negative environmental impacts in the supply chain and actions taken

› Suppliers > Supply chain management > 2017 audit results

GRI 408: CHILD LABOR

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.

› Strategy & management > Human rights
› Suppliers > Sustainable procurement strategy ✓
› Suppliers > Supply chain management

408-1 Operations and suppliers at significant risk for incidents of child labor, and corrective actions taken

› Suppliers > Supply chain management > 2017 audit results

No significant risk of child labor was identified at our direct business facilities.

Indicator	Reference	Checked	Indicator	Reference	Checked

GRI 415: PUBLIC POLICY

GRI 103: Management Approach

103-1, 103-2, 103-3 Explain why the topic is material and provide its boundary., Explain how the organization manages the topic., Explain how the organization evaluates the management approach.					

› Strategy & management > Representing political interests

GLOBAL COMPACT COMMUNICATION ON PROGRESS

Principle 1: Support and respect for internationally proclaimed human rights

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- Strategy & management > Data privacy and data security
- Strategy & management > Stakeholder management > Political advocacy
- CR facts: Social Charter
- CR facts: Compensation
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Supplier audits
- Customers & products > Consumer protection and security > Mobile communications and health (EMF)
- Employees > Health and safety
- Employees > Pioneering concepts for the workplace
- Employees > Diversity and equal opportunities
- Customers & products > Consumer protection and security > Protecting personal data
- 2017 Annual Report > Management report > Employees
- 2017 Annual Report > Management report > Group strategy
- 2017 Annual Report > Management report > Management of the Group

Principle 2: No complicity in human rights abuses

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- Strategy & management > Stakeholder management > Political advocacy
- Customers & products > Consumer protection and security > Mobile communications and health (EMF)
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Supplier audits
- About this report > GRI index > Further GRI aspects reported > Social indicators: Human rights

Principle 3: Uphold freedom of association and the right to collective bargaining

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- Employees > Pioneering concepts for the workplace

Principle 4: Elimination of all forms of forced and compulsory labor

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- Strategy & management > Stakeholder management > Political advocacy
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Supplier audits

Principle 5: Abolition of child labor

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- Strategy & management > Stakeholder management > Political advocacy
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management

Principle 6: Elimination of discrimination in respect of employment and occupation

- Strategy & management > Values and Guiding Principles
- Strategy & management > Compliance
- 2017 Annual Report > Management report > Employees
- 2017 Annual Report > To our shareholders > Corporate Governance Report

Principle 7: Support a precautionary approach to environmental challenges

- Strategy & management > CR strategy
- Strategy & management > CR strategy > ESG key performance indicators
- Strategy & management > CR strategy > Governance
- Strategy & management > Stakeholder management > Political advocacy
- Strategy & management > Risk and opportunity management
- Climate & environment > Climate protection strategy
- Climate & environment > Resource efficiency and environmental protection
- Climate & environment > Climate strategy > Energy efficiency in the network
- Climate & environment > Other environmental topics > Protecting biodiversity
- Climate & environment > Climate strategy > Climate-friendly mobility
- Customers & products > Sustainable products and services > Sustainable products
- CR facts: Sustainability Guideline for Product Design
- CR facts: Device packaging policy
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Supplier audits
- CR facts: Conflict-Free Sourcing Initiative
- Facts & figures > Environmental indicators > CO_2 emissions
- Facts & figures > Environmental indicators > Energy
- Facts & figures > Environmental indicators > Used cell-phone collection and waste volume
- Facts & figures > Environmental indicators > Other environmental data
- 2017 Annual Report > Management Report > Risk and opportunity management

Principle 8: Undertake initiatives to promote greater environmental responsibility

- Strategy & management > Values and Guiding Principles
- Strategy & management > CR strategy
- Strategy & management > CR strategy > ESG key performance indicators
- Strategy & management > CR strategy > Governance
- Strategy & management > Stakeholder management > Political advocacy
- Climate & environment > Climate protection strategy
- Climate & environment > Resource efficiency and environmental protection
- Climate & environment > Climate strategy > Energy efficiency in the network
- Climate & environment > Other environmental topics > Protecting biodiversity
- Customers & products > Sustainable products and services > Used cell-phone collection
- CR facts: Green Car Policy
- CR facts: Code of Conduct on Energy Consumption of Broadband Equipment
- CR facts: Sustainability Guideline for Product Design
- CR facts: Used cell-phone collection
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Conflict-Free Sourcing Initiative
- SAR levels https://www.t-mobile.de/sar-werte/0,17595,1347-_,00.html
- 2017 Annual Report > Management Report > Risk and opportunity management

Principle 9: Encourage the development and diffusion of environmentally friendly technologies

- Strategy & management > CR strategy
- Strategy & management > CR strategy > ESG key performance indicators
- Strategy & management > CR strategy > Governance
- CR facts: Sustainability Guideline for Product Design
- Customers & products > Sustainable products and services > Used cell-phone collection
- Climate & environment > Climate protection strategy
- Climate & environment > Resource efficiency and environmental protection
- Climate & environment > Climate strategy > Energy efficiency in the network
- CR facts: Green Car Policy
- Suppliers > Sustainable procurement strategy
- Suppliers > Supply chain management
- CR facts: Conflict-Free Sourcing Initiative
- 2017 Annual Report > Management Report > Innovation and product development

Principle 10: Work against corruption in all its forms of, including extortion and bribery

- Strategy & management > CR strategy
- Strategy & management > Compliance
- Strategy & management > Risk and opportunity management
- Strategy & management > Data protection
- Strategy & management > Stakeholder management > Political advocacy
- Suppliers > Sustainable procurement strategy
- CR facts: Supplier audits
- 2017 Annual Report > To our shareholders > Corporate Governance Report
- 2017 Annual Report> Management Report > Risk and opportunity management